JUN 5 1922

June, 1922

Electrical Merchandising

25 Cents

Engineering Library

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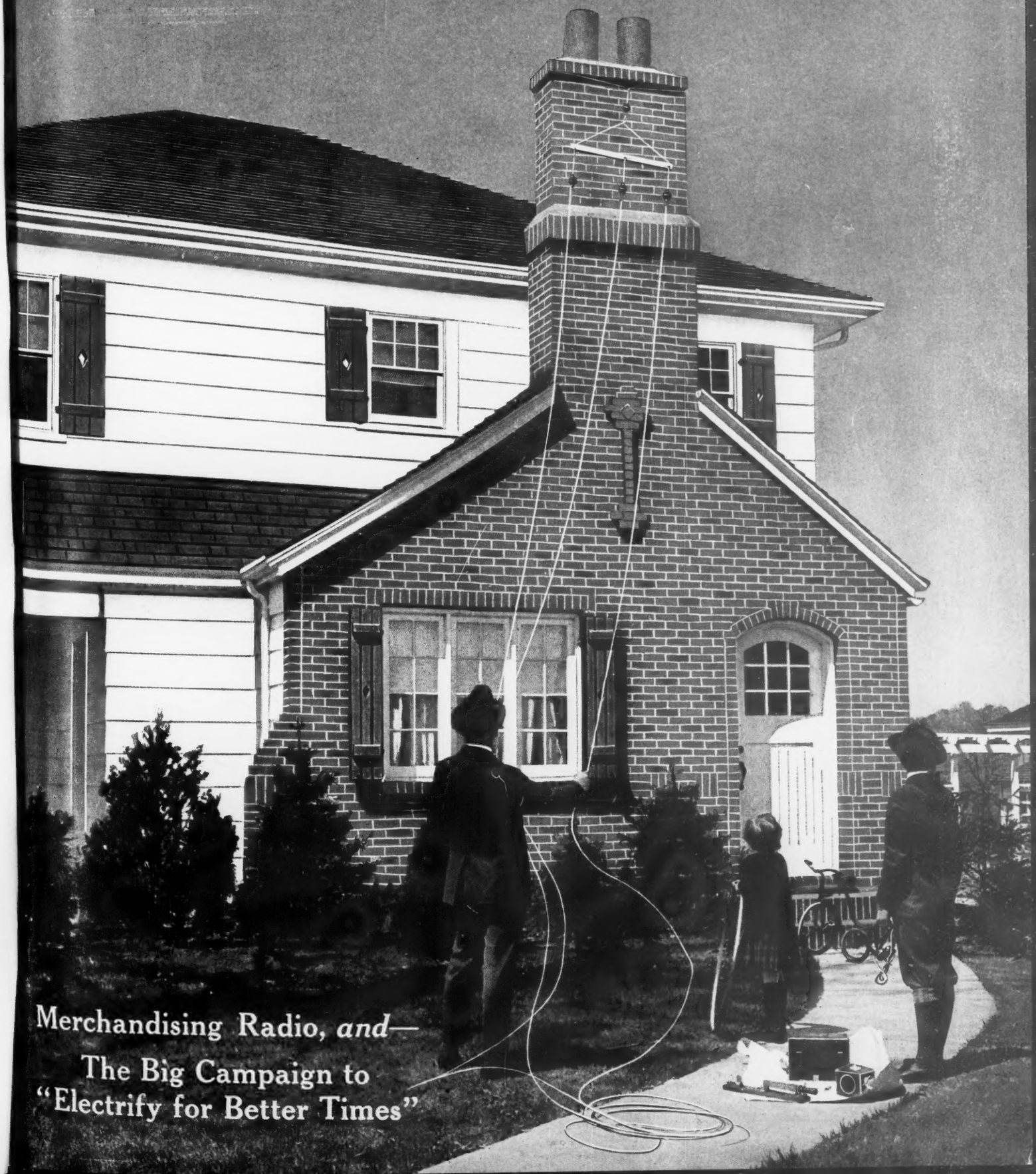
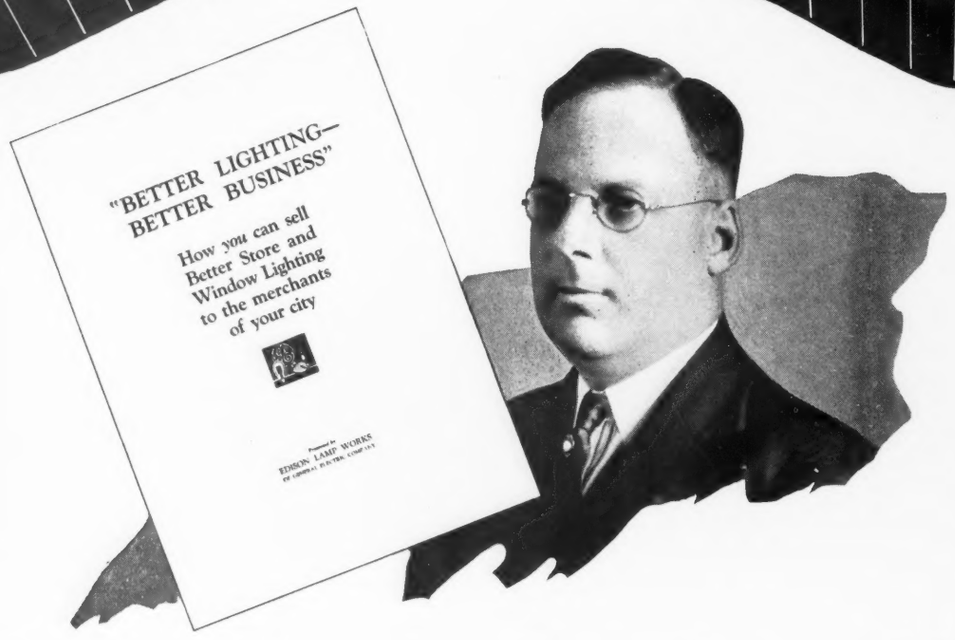


Merchandising Radio, *and*—

The Big Campaign to "Electrify for Better Times"



You can do what Bob Oyler did

HE'S R. V. OYLER, of the Edison Electric Company, Berkeley, Cal., and one of the livest Edison MAZDA Lamp Agents. He started out to sell Better Lighting to Berkeley merchants. Here is the result of his activities *on his own block alone*:

Visited 26 stores.
Got 11 jobs (all but one including new wiring).
Sold 65 reflectors and 65 75-watt and 100-watt lamps for store windows.
Sold 75 lighting units and 75 75-watt and 100-watt lamps for store interiors.

"I went after the merchants on the basis of improving their business by better lighting," says Mr. Oyler. "It wasn't hard to prove this to them. Needless to say, I am going to extend my activities to other sections. I have found that store and window lighting is one of the best types of business to go after for two reasons: first, you get the business on a non-competitive basis; second, you get your money back quicker."

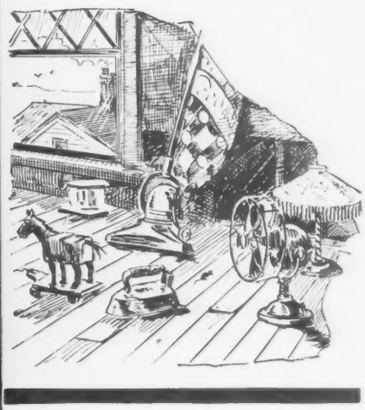
YOU can do what Mr. Oyler is doing. We have prepared a complete selling plan for Edison MAZDA Lamp Agents, showing how to sell Better Store and Window Lighting, and are furnishing our Agents with the sales helps needed. Merchants are being prepared for your sales letters and calls through five full page advertisements in The Saturday Evening Post.

Write today to the district office serving you for particulars.

EDISON
MAZDA LAMPS

EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY

Electrical Merchandising, June, 1922. Vol. 27, No. 6. Published monthly. McGraw-Hill Co., Inc., $2.00 per year. 25 cents a copy.
Entered as second-class matter July 21, 1916, at the Post Office at New York, under the Act of March 3, 1879.



How Much Lamp Cord Are You Selling?

This is the convenient attractively labelled carton in which future shipments of lamp cord will be packed.

There is a market for lamp cord worth going after. It is roughly estimated upon competent authority that over 125 million feet of lamp cord is sold each year. The dealers who sell it are the ones who try by keeping it in sight, on the principle that 'well displayed is half sold.'

G-E Lamp Cord is a quality product. It offers a wide selection of colors in silk or cotton and it stands up in service. Packaged attractively with the blue and orange label it makes excellent shelf merchandise with which to go after *your* share of the annual lamp cord sales—and there is a G-E display cabinet that is a sure "silent salesman" for silk cord.

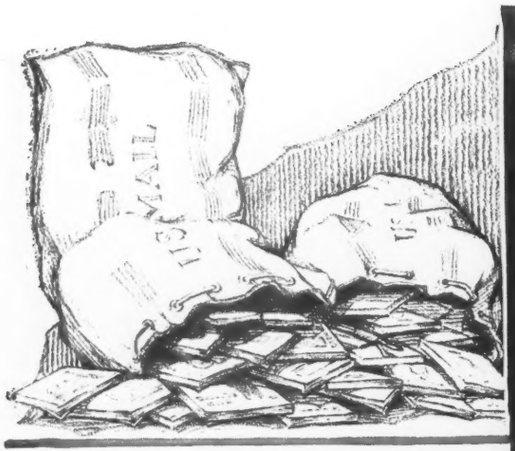
Get your lamp cord out from under the counter—
AND KEEP IT OUT

37-26

General Electric Company

General Office
Schenectady, N.Y.

Sales Offices in
all large cities



Electrical Convenience is a topic of conversation in thousands of homes this year

G-E National Advertising will help the dealer sell the electrical idea

G-E National advertising, starting next month in prominent magazines of large circulation, will feature ***complete*** electrical convenience. It will paint an alluring picture of the comforts to be had if the home be properly wired.

This advertising will direct to contractor-dealers' stores thousands of those whose interest in electrical equipment for the home has been aroused to the buying point.

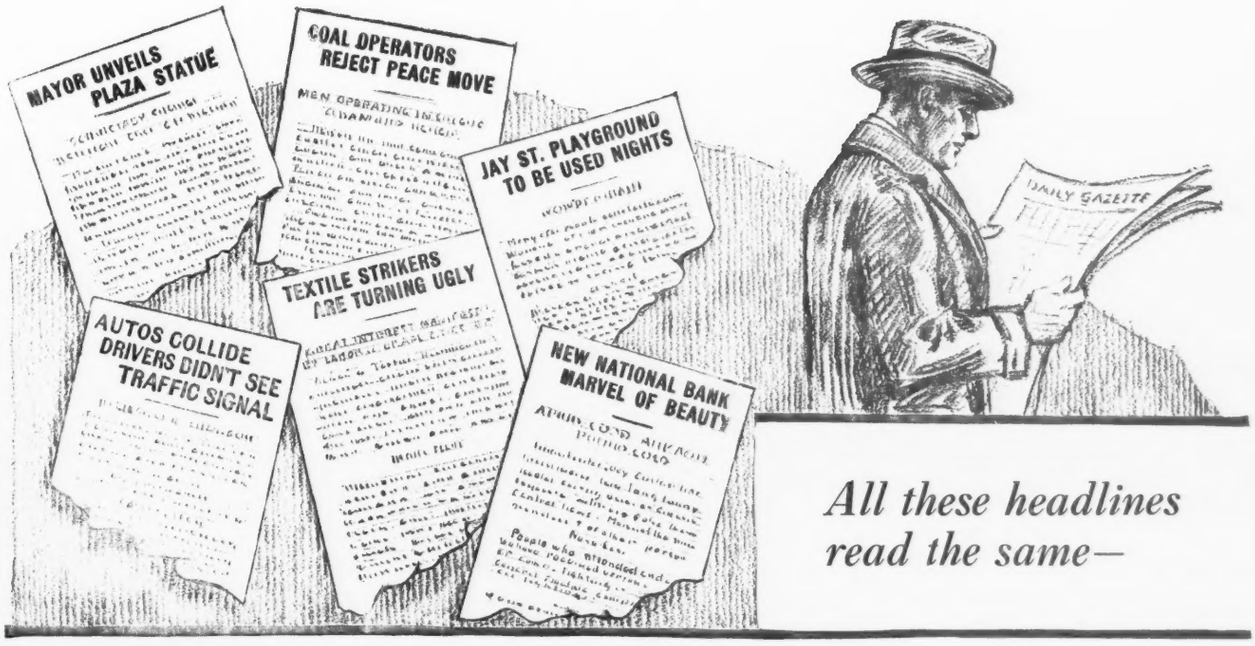
Complete wiring and G-E Reliable Wiring Devices are being made increasingly easy to sell. The model electrical homes now being built from coast to coast are giving an added stimulus to public interest.

41-184

General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities


MAYOR UNVEILS PLAZA STATUE
COAL OPERATORS REJECT PEACE MOVE
JAY ST. PLAYGROUND TO BE USED NIGHTS
TEXTILE STRIKERS ARE TURNING UGLY
AUTOS COLLIDE DRIVERS DIDN'T SEE TRAFFIC SIGNAL
NEW NATIONAL BANK MARVEL OF BEAUTY
DAILY GAZETTE
All these headlines read the same—

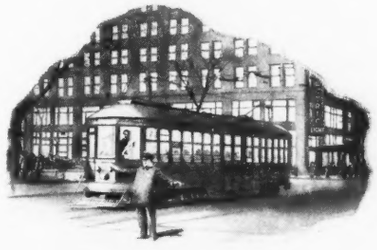
"Flood Lighting Wanted!"

To the wide-awake electrical dealer there are many opportunities for business offered in the columns of the daily newspapers.

When your town puts up a fine statue or building, its beauty should not be obscured by darkness. Propose that it be floodlighted at night—and get the business of installing the fixtures and supplying lamps.

Floodlighted Statue

The traffic accident list will be shorter if the traffic officers are made conspicuous by a beam of light from a G-E floodlighting projector—more business for the contractor-dealer.



Floodlighted Traffic Officer

Playgrounds may be given 24-hour usefulness by night-time illumination—another profitable job.

In times of strike, crime or social unrest, property is best protected at night by the searching light from floodlighting projectors mounted conveniently on poles, fences or adjacent buildings. Their installation makes a good job and creates future business in lamp renewals.

Floodlighted Bathing Beach

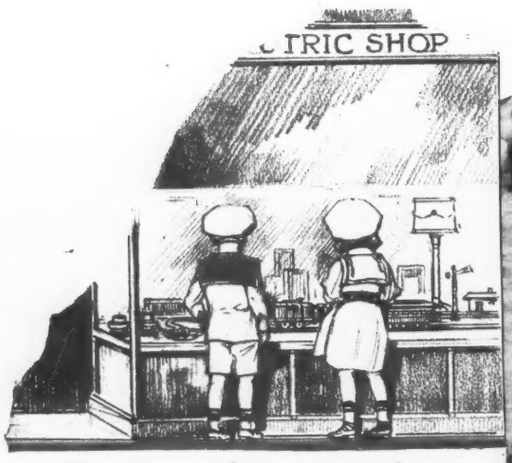
Comprehensive data on the vast field for floodlighting applications has been arranged in interesting and helpful form in Bulletin Y1464-A. A copy will be sent on request.

35C-91

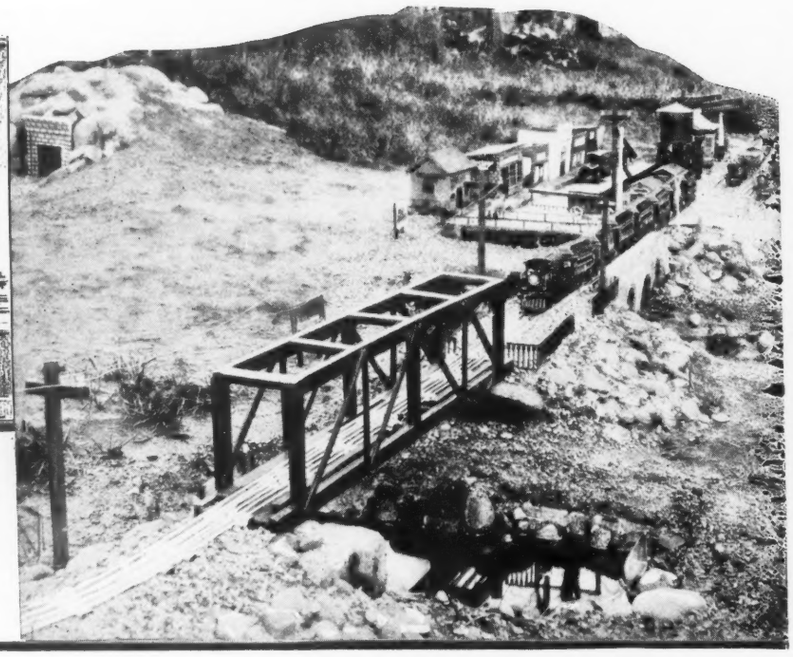
General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities

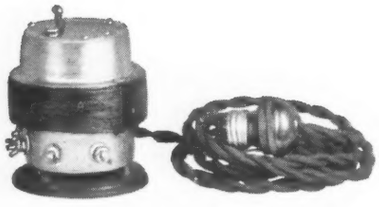


The lure of toys—particularly mechanical ones—is universal. Even grown-ups are attracted by a good toy display.



Are You Getting the Profits From Electrical Toys?

G-E Wayne Toy Transformer—50 Watt



G-E Wayne Toy Transformer—100 Watt

Electrical toys are popular with the rising generation who will be your customers in the years to come. Are you making friends with these little men and women now?

Any one under sixteen years or age—and many older—will tell you that toys have as great an attraction in summer as in winter. They are a year 'round sales possibility.

The G-E Wayne Toy Transformer should be sold with every electrical toy that goes to a wired home. It should also be sold to every present toy-owner who has been using up dry-batteries operating his railroad system or other motored playthings.

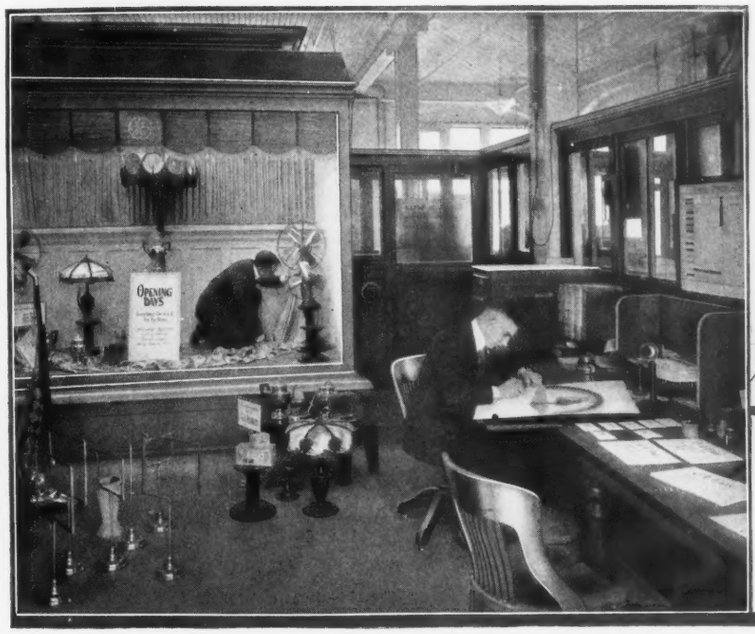
Why not put on a drive to sell toy transformers now? You might arouse interest by offering a prize for the best outdoor railway system—of course you would sell the material to make the outfit and the transformer to run it.

Here is business to fill in the dull spots of the year. Isn't it worth going after? 33A-111

General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities



Window Display Room of G-E Commercial Service

G-E Service Helps Solve Individual Problems

A Research Laboratory For Commercial Work

Dealers who, as retailers of G-E products, receive the Electrical Advertiser regularly are familiar with the constructive work of G-E Commercial Service.

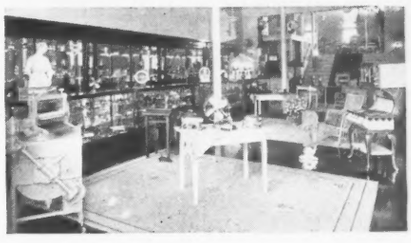
This service, operated for the benefit of electrical contractor dealers, is responsible for the window displays and printed literature which are furnished to G-E dealers to help them sell G-E products.

But G-E service does not stop there. Experts will assist dealers in store arrangement, direct mail work and practically any other phase of selling. The entire staff is at the service of any G-E dealer to help him solve any problem of his own individual business. A vast volume of statistics on selling conditions is also available and reports can be secured on almost any merchandising subject.

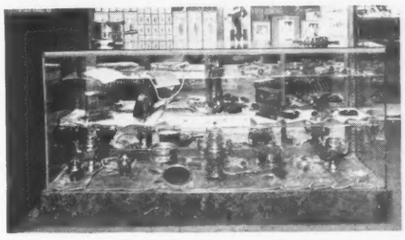
If you are a G-E dealer and need some outside help in arranging your store, putting on sales campaigns or designing window trims, ask your distributor to put you in touch with G-E Commercial Service. It will help you free of charge.

95-509

Store front designed by G-E Commercial Service



Store interior by G-E Service



Display for floor case arranged by G-E Service

General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities

List of G-E Factories

Connecticut
Bridgeport — Windsor

Indiana
Ft. Wayne — Decatur

Maryland
Baltimore

Massachusetts
East Boston — Everett
Gloucester — Hudson
Lynn — Pittsfield
Taunton — West Lynn

Missouri
St. Louis

New Jersey
Ampere — Belleville
Harrison — Bloomfield
Roselle Park — Newark
New Brunswick — Little Ferry

New York
New York City — Rochester
Schenectady — Maspeth, L. I.

Ohio
Cleveland — Sandusky

Pennsylvania
Erie — Scranton — York
New Kensington — Philadelphia

Where to Get G-E Service

For Business in the United States

G-E Sales Office	G-E Distributing Jobber
Alabama, Birmingham	Matthews Elec. Supply Co.
Arizona, Phoenix	
Arkansas, Little Rock	
California, Los Angeles†	Pacific States Electric Co.
California, Oakland‡	Pacific States Electric Co.
California, San Francisco§†	Pacific States Electric Co.
Colorado, Denver†	The Hendrie & Bolthoff Mfg. Sup. Co.
Connecticut, Hartford	
Connecticut, New Haven	
Connecticut, Waterbury‡	New England Eng. Co.
District of Columbia, Washington	National Elec'l Supply Co.
Florida, Jacksonville	Florida Elec. Supply Co.
Florida, Tampa‡	Florida Elec. Supply Co.
Georgia, Atlanta§†	Carter Electric Supply Co.
Georgia, Savannah‡	Carter Electric Supply Co.
Illinois, Chicago§†	Central Electric Company Commonwealth Edison Co.
Indiana, Evansville‡	Crescent City Electric Co.
Indiana, Fort Wayne	
Indiana, Indianapolis	Indianapolis Elec. Supply Co.
Indiana, South Bend‡	South Bend Electric Co.
Indiana, Terre Haute	
Iowa, Des Moines	Mid-West Electric Co.
Kentucky, Louisville	Belknap Hardware & Mfg. Co., Inc.
Louisiana, New Orleans	Gulf States Electric Co., Inc.
Maryland, Baltimore	Southern Electric Co.
Massachusetts, Boston†	Pettingell-Andrews Co.
Massachusetts, Springfield	
Massachusetts, Worcester	
Michigan, Detroit	Frank C. Teal Company
Michigan, Grand Rapids	
Michigan, Jackson	
Minnesota, Duluth	Northwestern Elec. Equipment Co.
Minnesota, Minneapolis†§	Peerless Electrical Co.
Minnesota, St. Paul‡	Northwestern Elec. Equipment Co.
Missouri, Joplin†	
Missouri, Kansas City†	The B-R Electric Co.
Missouri, St. Louis§†	Wesco Supply Company
Montana, Butte†	Butte Electric Supply Co.
Nebraska, Omaha	Mid-West Electric Co.
New Jersey, Newark	Tri-City Electric Co., Inc.
New Jersey, Trenton	
New York, Albany‡	Havens Electric Co., Inc.
New York, Buffalo	Robertson-Cataract Elec. Co.
New York, Elmira	
New York City§†	E. B. Latham & Company Royal Eastern Elec'l. Sup. Co. (Also Borough of Brooklyn, Long Island City and Jamaica, L. I.) Sibley-Pitman Elec. Corp.
New York, Niagara Falls	
New York, Rochester	Wheeler-Greene Elec'l. Sup. Co.
New York, Schenectady	
New York, Syracuse	Mohawk Elec'l. Sup. Co.
North Carolina, Charlotte	Elec. Supply & Equipment Co.
Ohio, Akron	Republic Electric Co.
Ohio, Cincinnati†	The F. D. Lawrence Elec. Co.
Ohio, Cleveland	Republic Electric Co.
Ohio, Columbus	The Erner & Hopkins Co.
Ohio, Dayton	The Wm. Hall Electric Co.
Ohio, Toledo	W. G. Nagel Electric Co.
Ohio, Youngstown	
Oklahoma, Oklahoma City†	Southwest G-E Co.
Oregon, Portland†	Pacific States Electric Co.
Pennsylvania, Erie§	
Pennsylvania, Philadelphia§†	Philadelphia Electric Company Supply Department Frank H. Stewart Electric Co.
Pennsylvania, Pittsburgh†	Union Electric Company
Rhode Island, Providence	
South Carolina, Columbia‡	Perry-Mann Elec. Co., Inc.
Tennessee, Chattanooga	James Supply Company
Tennessee, Knoxville	
Tennessee, Memphis	Electric Supply Company
Tennessee, Nashville	
Texas, Dallas†	Southwest G-E Co.
Texas, El Paso†	Southwest G-E Co.
Texas, Houston†	Southwest G-E Co.
Utah, Salt Lake City†	Capital Electric Company
Virginia, Richmond	Southern Electric Company
Washington, Seattle†	Pacific States Electric Co.
Washington, Spokane	Pacific States Electric Co.
Washington, Tacoma	
West Virginia, Bluefield	
West Virginia, Charleston	
Wisconsin, Milwaukee	

For Hawaiian business: Catton, Neill & Co., Ltd., Honolulu

‡No G-E Office †Warehouse §Service Shop

Distributors for the General Electric Company Outside of the United States

INTERNATIONAL GENERAL ELECTRIC COMPANY, INC.

120 Broadway, New York, N. Y. Schenectady, N. Y.

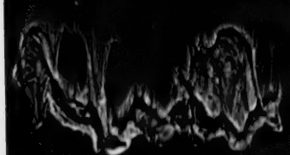
95-510

General Electric

General Office Schenectady, N.Y.

Company

Sales Offices in all large cities



Electrical Merchandising

Volume 27 — The Monthly Magazine of the Electrical Trade — Number 6

With which is incorporated *Electrocraft*

June, 1922

ELECTRICAL MERCHANDISING

O. H. CALDWELL, *Editor*
Associate Editor, STANLEY A. DENNIS

Editorial Staff
C. L. FUNNELL H. S. KNOWLTON LIDDA KAY
G. C. TENNEY F. R. CLAUSS

Contributing Editors
F. B. RAE, JR. ROBT. SIBLEY
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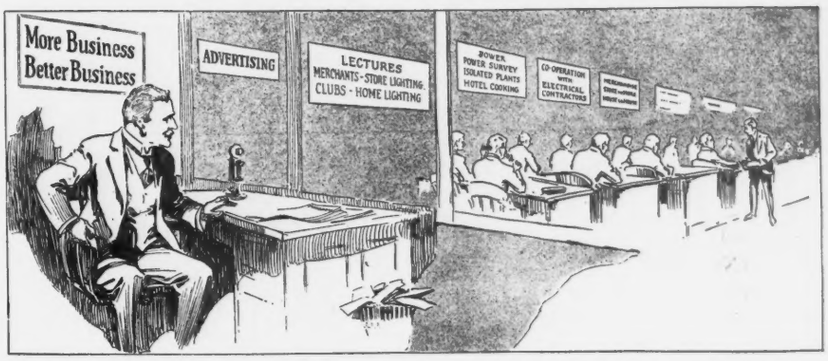


"The sales organizations of the past should be revived, rejuvenated and infused with new life; plans for intensified campaigns should be prepared to push the sale of service, together with the judicious and timely use of advertising. Abundant business awaits the organization which goes after it!
—From report of N. E. L. A. committee on Commercial Service.

Things Have Started! Now It's Up To You

AT the Atlantic City convention of the National Electric Light Association, May 15 to 19, and again at the Hot Springs meeting of the Electrical Supply Jobbers' Association the following week, the subject of business development, as crystallized in the phrases "Electrify America—Work Together and Win Together"—held a prominent position on the programs.

Discussion at these two great gatherings of the electrical industry indicated that there is everywhere a thorough belief in the timeliness of the present movement to revive aggressive business-getting all along the line.

For business in general is unmistakably better. Production in the basic industries is expanding. Stocks of goods are being stabilized. Money is plentiful. World conditions are improved—from an economic, if not yet a political, standpoint. Good times, generally, seem just ahead.

But in all of the convention discussions of the "Electrify America" movement it should be noted that the importance of *local activity* and *home-town effort* has been emphasized. Each local electrical family will have to solve its local selling problem in its own way. Each community electrical development group will have to work out its own procedure, depending upon the working forces and the leadership at hand.

Above all, this "Electrify America" movement means getting the individual firm and business house at work selling. It means lining up all the separate sales units and individual salesmen. It means getting busy and *going out and getting the business* right away—*this summer!* It means "taking up the slack" in the hot-weather months ahead—and to this summer-time effort ELECTRICAL MERCHANDISING contributes the incentive of a prize contest (regarding details of which see next page).

For electrical business development will depend, after all, upon the enthusiasm, the grit and the selling intelligence with which the individual man tackles his individual job.

"Electrify America—Work Together and Win Together." Things have started. Now it's up to you!

An Announcement by the Editors—

$500 in Prizes

for Speeding Up Summer Sales

With a rising curve of business, and the N.E.L.A. Campaign to "Electrify—for More and Better Business" in full blast, this summer offers a rare chance to boost the selling curve still higher. ELECTRICAL MERCHANDISING offers you $500 in prizes for the best sales campaigns put on in July and August, by electrical dealers, contractors and central-station merchandising men.

FOR some time the banks have admitted it. Ask a builder or a mason or a master carpenter about it and he'll give you a look that says: "Don't bother a man when he's busy." Department stores and mail-order houses say it's so. And even our professionally pessimistic butcher granted last night that it's really a fact.

Business is really better. It has been gaining steadily for the last fifteen weeks. And in that gain, the men in the business of selling electrical goods have been well up among the leaders. They have had their coats off and their sleeves rolled up, getting orders where business just wasn't, until their initiative and ingenuity and persistence have shown people how much they need the blessings and comforts of things that do work by wire. The sales curve is going up and with proper planning it can be kept going up all of this summer.

Summer's coming. In July it gets hot and in August it gets a darn sight hotter. It's easy to snap on the fans and lean over the counter and watch the fellows dropping into the barber shop across the street for a cool shave and a fragrant shampoo. And after that, there's the Lake to go to and into. That's one way to spend the summer.

Don't Read Any Further Unless Money Interests You

But we refuse to believe that the readers of ELECTRICAL MERCHANDISING are going to let this increasing business die. We have a man-sized hunch that amounts to a solemn conviction that accelerator-kicking men who have steadily brought up the volumes of electrical sales in the last few weeks are going to stay busy this summer and keep increasing the volume of business. We believe that some first-magnitude sales stunts will be pulled off this coming hot season that will make electrical selling history.

Gentlemen, does money interest you? Does the crinkling, crackling sound of a piece of blue safety bond with nice round numerals on it convey pleasure to your soul via the ear? Good! That shows you're normal. And that's fine. Because we have just set aside 500 perfectly good dollars in real money all ready to mail to our sellingest readers. And here's all you have to do to get some of it:

Start making your plans now for this prize money. Take a definite selling problem, plan your campaign, and put it through. Then write us a letter giving us the high spots, the objective of the sale, how you made your plan, how the plan was put into operation, what results were obtained and what you learned from the campaign that is of sound merchandising value to you.

For the best campaign, as described in such a letter, we'll award a first prize of $250. For the next best campaigns we will pay a second prize

The Whole Story of Electrical Merchandising's July and August Prize Business Contest

1. Make a definite selling plan. 2. Sell it to everybody in your shop. 3. Carry the plan to a real finish.

of $100; a third prize of $50 and four $25 prizes.

Literary style doesn't count. Write it in pencil on the back of your milk bill, inscribe it on ledger paper with bookkeeper's ink, or dictate it to the young lady with the silk sweater and blue eyes—it's all one to us. It's the brains and zip and follow-through in the sale behind the letter that will win the money.

If You Sell Anything Electrical Your Chances Rank A-1

Every man who sells electrical service or appliances or wiring anywhere has an equal chance. The campaign may be to put electric lights in churches, with a maximum market of four churches. But a good sales plan, well carried out has an equal chance with a campaign to sell lightning arresters to every radio owner in town; or convenience outlets to 166 bungalow owners; or appliances to everyone on your block; or farm power and light plants to a hundred rural residences not reached by central station service.

Spotting the opportunity, making a workable sales plan and *carrying it through to a bang-up finish* are the features we're interested in. A contestant in a town of 2,000 may beat the metropolitan dealer if his campaign, in the opinion of the judges, uses his opportunities to better advantage.

The Names of All the Judges Are on the Contents Page

As to the judges, we thought something of going out and getting some national figures to sit in solemn cogitation over the entries in our Contest—such men as David Lloyd George, Charles Evans Hughes, Babe Ruth, Will Hays and William S. Hart. Such a personnel would attract wide publicity. But great as these men are they could not feel the wild pulse that will tax our own arteries as we read your accounts of electrical sales barriers thrust aside and the sprouting of your well planted, skillfully tilled sales seeds. We feel, somehow, that outside of those men actually engaged in selling things electrical, there is no group of folks closer to the game or more sympathetic with its difficulties and its delights than our own staff. And so, gentlemen, the judges in this Summer Selling Contest of ours will be our own editorial lineup, as listed on the contents page of this issue. Remember that we want facts, not literature. Spelling and grammar will not count!

How to Get In On
Electrical Merchandising's
$500
Summer Selling Contest

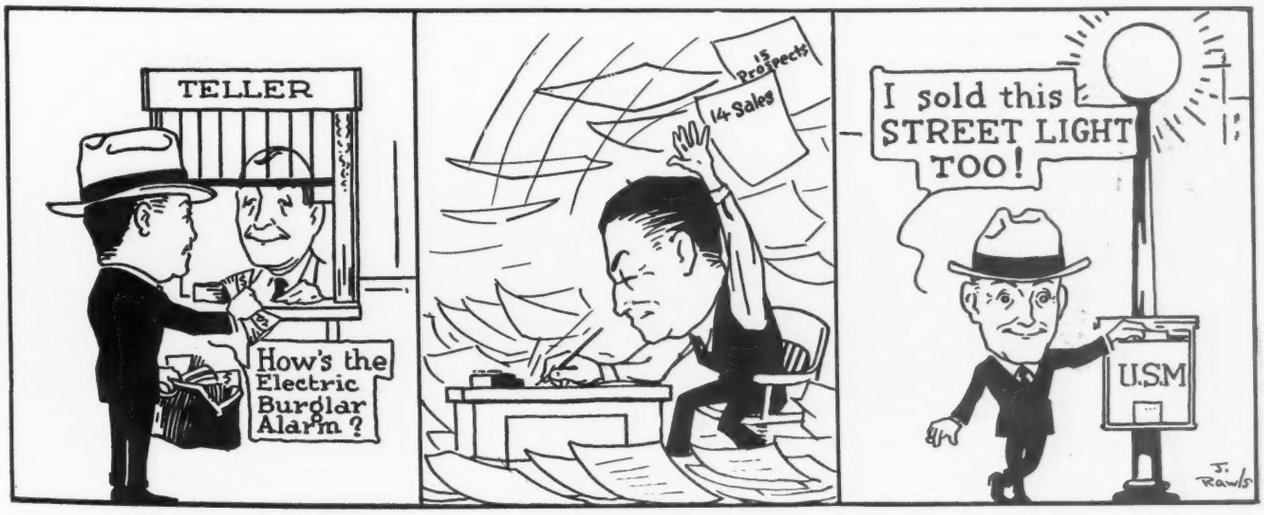
1. Decide now to enter the contest.
2. Pick out some field of electrical selling that you want to develop or some line of goods you want to push.
3. Plan a Summer Sale in that field, starting in July or August.
4. Put the sale on, and carry it through to the best possible finish you and your fellow workers can put over.
5. Write us a letter about it covering these points:
   a. What sales problem you started out to solve.
   b. How you planned the sale.
   c. How the sale was actually carried on.
   d. What the results were and how they checked up with your objective.
   e. What you learned from the campaign that is of real use in your business.
6. Mail this letter so it will get into our hands by September Tenth.
7. Watch the October issue of ELECTRICAL MERCHANDISING for announcement of winners and for publication of winning letters.

Speeding Up Sales by Sound Merchandising

And now all you have to do is to survey your field, decide on what you can do best and put it over. Start it in July! That will give you all of August to finish it up brown. You are bound to win. Your selling activity will bring you immediate profits and a busier store. It's the busy store that magnetizes the sales.

If possible get some pictures of your campaign and send them in. We'd like to use them in the August issue. But start that campaign now, and drop us a post card, telling us you'll be among those present. That campaign will pay you immediate profits and enlarge your clientele. And the tonic of activity which it injects into one phase of your business will be reflected in every other department. Uncork the tonic bottle now by entering ELECTRICAL MERCHANDISING'S July and August Business Prize Contest.

Editorially Condensed and Artfully Picturized into Six Lines and Half a Dozen Sketches



4. Bank your proceeds.

5. Write us the high spots.

6. Mail the letter; cross your fingers.

"Electrify America!"

The Big Campaign to "Electrify for Better Times"

Movement for Intensive Local Business Development Gets Under Way at Atlantic City Convention of National Electric Light Association. Other Organizations Representing All Branches of Electrical Industry Pledge Support

AT a general session of the annual convention of the National Electric Light Association, at Atlantic City, May 17, the campaign for local community electrical development was launched under a big banner bearing the message

"Electrify America!"

Everybody Co-operate in the Movement for Business Development Work Together and Win Together"—

There followed a symposium on business development in which representatives of all branches of the electrical industry took part. During these addresses, the support of central-station men, contractors, dealers, jobbers and manufacturers was pledged, and the fact that the Society for Electrical Development stands ready to serve as the central workshop of the campaign was brought out by its president, W. W. Freeman, who is also a past-president of the N. E. L. A.

G. E. Miller, general commercial manager of the Cleveland Electric Illuminating Company, whose policies of "Work Together and Win Together" as carried out with the electrical trade of Cleveland, have supplied much practical inspiration for the "Electrify America" movement.

Throughout the discussion it was repeatedly emphasized that the purpose is not to create a big centralized machine to carry on the campaign, but rather to set up local co-operative leagues in various towns and cities, to do the intensive local work—the central organizations serving simply as clearing houses for ideas on the sale of wiring, appliances, lighting and power.

Opportunities on Every Hand to Sell Service

Henry L. Doherty, president, Henry L. Doherty & Company, and past president of the Society for Electrical Development, spoke for the lighting and power companies, and pointed out the need for aggressive local selling right now. The developments in the electrical art, he declared, are coming much faster than the selling side of the industry can get them into general application. "Whenever you see a man or woman anywhere performing toil which a machine or motor might do," reminded Mr. Doherty, "right there is an opportunity for you to apply electricity and sell electric service."

Guy E. Tripp, chairman of the board of the Westinghouse Company, expressed the interest of the manufacturers in the "Electrify America" movement. Referring to the relations of lighting company, jobber and dealer, General Tripp said: "If an independent jobber becomes a valuable load builder for the central station in his territory, he may be sure of co-operation and support, and that is the central point to which my remarks have led, viz., that the greatest opportunity for the highest development of the business of the jobber, independent or otherwise, lies in the direction of establishing himself, not as a mere vendor of electrical appliances, but as a great power in the development of the electric light and power field of the country."

Why Lighting Company Must "Lead Out," Locally

W. E. Robertson, general manager of the Robertson Cataract Electric Company, Buffalo, N. Y., and the jobber member of the N. E. L. A. executive committee, represented the electrical supplies jobbers in the symposium, and predicted wide spread support of the movement to "Electrify America" on the part of the wholesalers of the country. Mr. Robertson emphasized the importance of local and community effort, and explained how the central station is the logical leader in launching a local campaign because of its close relation with the whole electrical family of its community, being

The new president of the N. E. L. A., Frank W. Smith, of the United Electric Light and Power Company, New York City, and Mrs. Smith. Mr. Smith—we again take pride in telling you—is ELECTRICAL MERCHANDISING's first subscriber, his application having been the first to be received when our original subscription rolls were thrown open, in 1916!

usually a customer of the local offices or agents of manufacturers, and a customer of local jobbers, besides co-operating with the dealers and contractors of the town.

Mr. Robertson explained the jobbers' ability to help in creating a larger market for electric service and equipment is two-fold. First, through co-operative effort in larger cities with the other branches in putting on campaigns. Secondly, through the 5,000 or more jobbers' salesmen spreading the gospel of electrification in their travels to thousands of cities and towns, large and small.

Co-operation Is Needed

The endorsement of the National Association of Electrical Contractors and Dealers was voiced by Ferguson Johnson, executive manager of the association, who spoke in place of National Chairman, James R. Strong. Mr. Johnson likened the situation existing between central stations and contractors to that prevailing between capital and labor. Their economic interests are the same, yet too often they work against each other instead of for each other and with each other. He suggested, however, that in such a nation-wide movement there should be no sides. Every branch and agency must be represented and every one must do his job.

W. W. Freeman, Cincinnati, Ohio, president of the Society for Electrical Development, was heartily in favor of the better business movement and said that the necessity of development was prompted by two considerations. Central stations must serve the public and must expand to meet increasing demands. Development must be intensive in order that the utility might receive the largest possible income from its investment. He pleaded for mutual confidence and mutual understanding throughout the industry and said that the better business movement must be approached with a definite understanding between the different elements. Agencies for electrical development now in the field and organized, he said, should be recognized.

OLIVER HOGUE

Oliver R. Hogue, the new chairman of the commercial section of the National Electric Light Association, is in charge of lighting sales for the Commonwealth Edison Company, Chicago.

There are now approximately 7,000,000 users of electricity in the country, but the automobile industry has succeeded in selling that many cars in half the time that it took the electrical industry to acquire that many users of electric service. Yet, he said, it costs less to equip a home completely for electricity than it does to purchase a "flivver." The necessity of intensive co-operative work was therefore apparent.

H. A. Lane, director for the joint committee, outlined its plans for business development.

The Fundamentals of Success

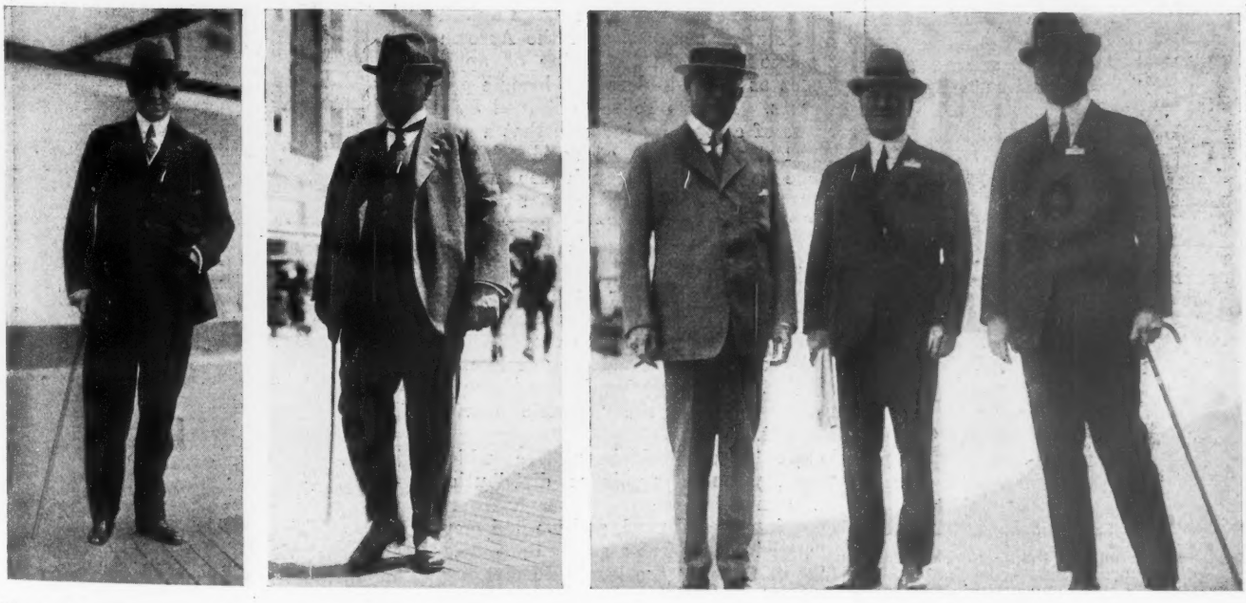
"Although in the final analysis the ultimate success of this movement will be a dollars and cents proposition," said Mr. Lane, "it is well to remember that there are four fundamentals in selling, only three of which can, to a material extent, be furthered or immediately accomplished by any movement so broad and general in its scope and character as this. These fundamentals are:

"1. Commanding the attention of the buying public.

"2. Creating an interest in electrical products by education.

"3. Creating a desire to have electrical products.

"The fourth function of selling—that of making the individual sale—can never be covered by co-operative development work, but only by the efforts of the individual retailer, who must tie in with the work of the general movement to the extent that he can say: 'Here is the article you desire, of the highest quality, etc.' "



Many big executives of big companies were present and took an active part in the convention. Here are, reading from left to right: General Guy E. Tripp, chairman of the board of the Westinghouse company; Arthur Williams, general commercial manager of the New York Edison Company; J. R. Lovejoy, vice-president General Electric Company; Dan E. Hegarty, general manager Brush Electric Company, Galveston, Texas, and C. E. Patterson, vice-president General Electric Company.

Merchandise Sales Bureau

C. E. GREENWOOD, *Chairman*, F. D. PEMBLETON, *Vice-Chairman*

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G. L. ATCHESON
A. W. BAKER
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J. L. HARVEY
W. S. HEALD
N. C. HURLEY
A. G. KIMBALL
ROBERT KUHN
H. A. LEWIS
L. A. LEWIS
D. R. SMITH
W. N. WADE
FRED WARDELL

RECOGNIZING the merits of previous reports on the buying and selling of electrical merchandise; stock accounting, shop management and operation, and kindred subjects which now make excellent reference manuals, the Merchandise Sales Bureau has this year centered its effort on broader subjects of vital interest to all engaged in the appliance industry.

During the past two or three years there has been a conflict of ideas on merchandising policies and on the mediums of distribution for electrical merchandise. There has been much discussion of whether central stations should stay in the electrical merchandising business.

We sense a growing tendency toward the belief that central-station companies are the logical ones to sell and promote the use of electrical devices. Outside of the question of the value of electrical devices as load builders and good-will builders for public service electric companies, it is generally conceded that the capital necessary to carry on the work on a proper scale, the standing of the central station in the community, and the natural inclination of the public to expect all parts of the "electric service" to be guided by the central-station company, make central station leadership in electric merchandising, or at least, electric-merchandise promotion, a particular function.

John Learned, of the Public Service Company of Northern Illinois, is one of the old original "Electrify America" men, and now has some 125 communities on his company's lines all so loaded up with electrification that the turbines groan and the engineers are forever having to build new generating stations.

In presenting our report we assume this point of view and are inclined to believe that in communities where central stations carry on an electric merchandise business on principles of fair competition with other electric dealers, that a healthier business condition for the other dealers results, and the per capita use of electric devices is greater than where that policy does not exist.

The work of the Bureau was divided into five divisions: Central-Station Merchandising Service, Electric Cooking and Heating, Relation with Manufacturers, Standardizing and Testing, and Sales Promotion.

Central Station Merchandising Service

Assuming that central-station leadership in the selling or promotion of electric devices is of paramount importance, a division on Central-Station Merchandising Service was formed. A comprehensive report of this division is printed as a part of the Merchandising Bureau Report.

This division has promoted the idea of having extensive tests made by central station companies of the Association to ascertain the value of appliances as load builders and income producers. Results so far obtained by a score of companies indicate that a substantial percentage of residential income is derived through the use of household devices and that sales activity, or promotion to place them in the hands of customers is most important. The action of companies along these lines is further justified by the good-will-building value of appliances, giving closer contact with the customer and broadening the meaning of electric service. The "lighting bill' as such is giving way to the "electric service account."

The purely selfish motive which would promote appliance distribution on a non-competitive basis has now gone into the discard, and we find merchandising profit as a goal gaining rapidly in favor in the leading companies. We find that a central-station appliance department operated as a profitable merchandise business has gained favor as a good-will builder between the branches of our industry and is productive of healthier retail distribution.

We maintain, therefore,

1. That central station leadership is a benefit to the company, to the trade and to the public.

2. That the needs of the public demand intelligent advice from the public-service company on various types and qualities of electric products.

Relation With Manufacturers

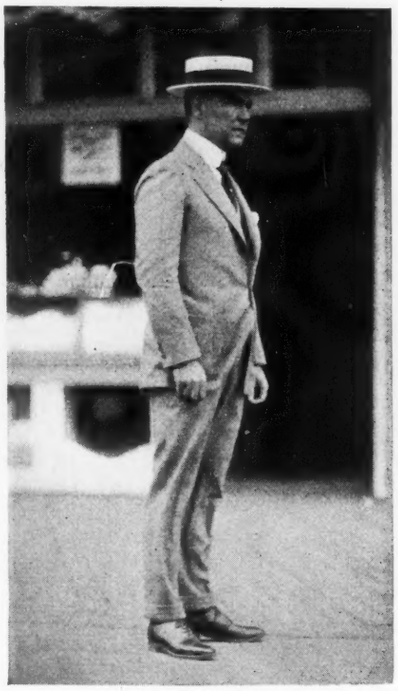
The value of any electric device lies in the service it gives. It may or may not be adequate for the work it is supposed to accomplish. If it does not give service, the customer places direct blame on the dealer rather than on the manufacturer. Maintaining the device in service is both a manufacturer and dealer problem.

Selling the idea of a particular electric service given through an electric device, sales methods in getting devices to the customers, and advertising in connection with them, are all problems of the dealer and of the manufacturer or his agents, the jobber.

Wider Spread on Appliances Considered Essential

They are common problems for dealer and manufacturer, and the groups should be in closer co-operation. To this end we had this year, a Committee of Manufacturers as a part of the Executive Committee of the Bureau. We have not functioned effectively nor produced definite results. The seed has been planted, however, and we feel that it will bear fruitful results at later date.

The question of discounts, one of the



H. N. McConnell, chief sales-exciter for the Electric Bond and Share Company properties, looking at the spot on the Atlantic City Boardwalk where some fifteen years ago he joined the central-station industry.

most complex with which we have to deal, has been under discussion. A wider spread for the dealer to cover his large handling charges is essential, especially in demonstrated articles such as washing machines, ironers, vacuum cleaners, etc. We believe that there is merit in the fundamental idea that quantity purchase should be the basis of discount. We realize, however, that discussion of the question is not relevant here, and that the entire subject with its ramifications is one for careful study.

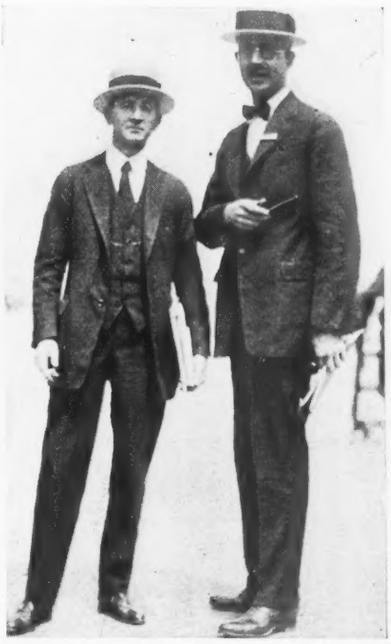
At this time the Bureau wishes to commend the Vacuum Cleaner Association for its broad, progressive action and its effort to sell a great electric idea to the public through local newspapers of the country.

Standardizing and Testing.

It seemed desirable to continue, this year, effort toward producing durability in devices, and to encourage and promote the testing of appliances at some central source.

The committee having this work in charge has met with handicaps but tests are still being conducted through the Electrical Testing Laboratories. For the first time an informative exhibit covering this work is a part of the general Convention Exhibit.

The standardizing of cords and plugs has progressed, a marked feature being the adoption of the standard separable plug by some of the larger portable lamp manufacturers. Much remains to be done in connection with the checking of durability of cords. The problem is complicated by the wide range of treatment a cord receives in actual service by the individual user. Plans are now being devised to continue practical tests on the basis of home service requirements.



"Johnny" Killeen, of electric-heating fame, now stationed at the headquarters office of the General Electric Company, congratulates Jack "Marion" Cross on his appointment as vice-president, Rutenber Electric Company.

Progress must necessarily be slow but we are heading in the right direction. The value of an appliance is in the service it gives the owner, the efficiency of that service and durability under service.

We maintain that superior quality will ultimately be the goal of all manufacturers of electric devices, both by reason of the demand of the public and by reason of necessity of maintaining guarantees.

There will be a market for goods of lower grades, but value for value should be obtained, and misrepresentation by any manufacturer will not only react in general disapproval of the consumer market for electric service through these devices, but will likewise react in the automatic elimination of the manufacturers who misrepresent.

Electric Cooking and Heating

It seems that this subject is ever new. The electric range for domestic use is showing marked development; the industrial cooking message is spreading; commercial cooking devices, bake-ovens, etc., are making sure progress and together they open up a field for rich returns. We can be most optimistic.

The essentials for building a cooking load are (1) a rate that will get the business, (2) an engineering department familiar with the characteristics of a range load, and (3) an organization sold on the merits of electric cooking.

Certain fundamental handicaps exist in large communities to the building of an electric cooking load, but these we believe, will be eliminated at the opportune time. Because such handicaps do exist need be no disparagement to the central stations who are ready. To them the report of the division this year is addressed. Electric cooking is here to stay. The essential of selling the company organization is carefully considered and methods recommended for its accomplishment.

In connection with the servicing of ranges it is interesting to note that

"Three friendly gentlemen," as the cigarette advertisements read: Tom Casey, vice-president Hurley Machine Company, Chicago; J. P. Livor, sales manager Pettingell-Andrews Company, Boston, Mass., and Edward N. Hurley, Junior, son of the famous ex-chairman of the Shipping Board, recently appointed a vice-president of the Hurley company.

Rex Cole, president of the Duplexalite Company, New York; "Jim" Davidson, general manager of the Nebraska Power Company, Omaha, and presiding dignitary of the Home Electric Legion; and Michael Schwarz, general manager of the Edward Miller Company, Meriden, Conn., wave greetings to a fourth outstanding luminary in the lighting field, the old Absecon lighthouse.

one large company that has developed a considerable range load has, over a period of years, reduced its average cost per service substantially, the reduction coming about notwithstanding the rise in cost of materials. Can there be more convincing indication of the point of view that must be taken in building a range load? Service supply costs must be reasoned over a period of years rather than on cost during early development.

Range User Is a Good Electrical Customer in General

The report of the Division brings out evidences of the off-peak nature of the range load. This is most important in justification of a rate and in the matter of station capacity. Information on the varying diversity factors in range loads is most important in the discussion of service supply, and we find that because of the widely diversified habits of home life, and in cooking, that diversity factors of ten to one and even fifteen to one are not uncommon.

It is of further interest to note that a study of transformer loads brings out that the electric range customer is always a very much higher electrified customer in every way than one not sold on the electric cooking idea.

Our report in connection with the subject of electric cooking and heating would not be complete without impressing the thought of the value of extending the promotion of cooking into the commercial and industrial field. Companies that have a fair start in the domestic field are already at work. Every hotel, restaurant, hospital and like institution and all bakeries offer opportunity for heavy duty equipment, at least bake ovens. The load is highly desirable. The income is sure and the service given will be appreciated.

Sales Promotion Division

The Sales Promotion Division was formed to study sales organization and sales methods for the distribution of electric merchandise, and also to devise plans for selling the electric idea and increasing thereby the retail market for various groups of devices. The work included the advantages for co-operation between manufacturers and dealers, central stations and contractors. The deliberations of the division were in progress when the great, broad Business Development Movement started in the N. E. L. A. which included the purpose of our Sales Promotion plans in broader scope. Instead of duplicating effort, it seemed better to assist and no report of the division is submitted.

Frank A. Ketcham, general sales manager of the Western Electric Company, must have been telling one of his famous good stories when our camera man came stealing silently along the Boardwalk and snapped this picture.

The Bureau would go on record with the following recommendations to central stations:

1. That merchandise departments be operated on strictly cost (i.e. sound merchandise) principles.

2. That friendly contact with progressive dealers and contractors in periodic sales and promotion work be a part of the operating program of the merchandise department wherever desirable.

3. That all central station companies that have not made tests for ascertaining appliance load, check up with the findings of other companies either to disprove or to be convinced of the income producing value of electrical devices.

To the manufacturers we recommend:

1. That quality and durability be kept an essential in the building of devices and that the problem be studied for giving better and prompter service at lowest cost.

2. That the manufacturer make careful study of the advantages of national advertising versus local advertising and sales effort, and the desirability of local co-operative newspaper advertising with the dealers and contractors.

3. That the cooking schools of the country, public and private, and institutions of learning offering domestic science courses be given careful attention by the manufacturers as an advertising medium. We feel that they are not generally sold on the electric housekeeping idea, and yet they are not only turning out the future housekeepers of the country, but the students are practicing their school knowledge in the home. They are not taking with them the electric cooking message.

Conclusion

Each year brings new problems and this year is no exception. The transition period has brought knotty problems in merchandising for the manufacturer and jobber and central station, and as we view the appliance situation today, we see certain problems needing particular attention. We refer to the coming of cheap devices from foreign markets; the impossibility of some of our manufacturers to ride the gale of over-production, hence depleted finances and the result on our market; the uncertainty of substantial retail outlets; the ever present differential problem, and the present weakness of the buying market.

This last is now to receive the heroic treatment it needs. The buying pendulum swung high and in its backward sweep seemed to leave its arc and come to a dead stop. It will soon be put in normal swing and in our opinion, the work of the Merchandise Sales Bureau for the coming year should be to aid in every possible way business development work. "Business Normal" once again will go far in solving the serious problems of today.

The Trend of Central Station Merchandising—

Data from 139 *Replies to Questionnaires Sent to* 300 *Companies*

1. Do you sell appliances? Yes 110. No 29.

A. Do you maintain your own electric shop? Yes 98. No 35.

B. Do you sell appliances through an outside corporation in which you are interested? Yes 4. No 134.

2. If you do not sell appliances, do you co-operate with dealers? Yes 58. No 4.

A. Do you furnish advertising for dealers at your expense? Yes 18. No 49.

B. Do you furnish lists of prospects, such as newly wired houses, to dealers? Yes 42. No 46.

C. Do you maintain an exhibition of appliances and refer prospects to dealers? Yes 29. No 62.

D. Do you advertise electrical appliances as a part of your regular advertising appropriation? Yes 81. No 25.

3. Do you maintain a repair and service department to keeep the appliances on your lines in good condition? Yes 110. No 29.

A. If not, are you satisfied that proper service is being rendered by dealers? Yes 27. No 12.

4. Have you any data as to number of appliances per residence on your lines? Yes 23. No 90. (Two companies making survey.)

5. If not, are you willing to make a survey of two to three per cent of residences connected to your lines consisting of a census of the number and type of appliances in each house? Yes 54. No 28. (Five companies making survey.)

(Care should be taken to survey the average type of residence connected to your circuits.)

6. Have you any data as to the kilowatt hour consumption per annum per customer directly due to appliance load? Nine companies report average of 98.6 kilowatts.

7. What is your average kilowatt hour consumption per residence per annum. Eighty-nine average 281 kilowatts.

8. What is your residence rate?

Lighting Sales Bureau

L. R. WALLIS, *Chairman*

G. BERTRAM REGAR, *Vice-Chairman;* C. L. FUNNELL, *Secretary*

G. W. BARBER
B. H. BENDHEIM
A. F. BERRY
R. M. BLEAK
A. D. CAMERON
J. DANIELS
A. F. DICKERSON
H. G. DISQUE
C. G. DURFEE
J. C. FISCHER
J. L. HARVEY
WARD HARRISON
W. S. HEALD
S. G. HIBBEN
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J. J. KIRK
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M. LUCKIESH
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C. M. MASSON
G. E. MILLER
C. C. MUNROE
J. H. O'HARA
J. M. ORR
W. H. ROLINSON
G. H. STICKNEY
F. C. TAYLOR
E. D. TILLSON
L. A. S. WOOD
P. B. ZIMMERMAN

THE Lighting Sales Bureau, at the beginning of the present administration, deemed it advisable to curtail the personnel of the Bureau due to existing business conditions. No change, however, was made in the aims and scope of the Bureau's work, they being identical with those of the previous year, namely:

1. To promote appreciation of the present and potential value of lighting to the electrical industry.

2 To collect analyze and disseminate information concerning lighting practice.

3. To promote lighting sales.

The special aim of the Bureau this year was to continue the work of the divisions and committees without interruption, so far as possible. It was decided at the first meeting not to organize the committees and divisions, as in previous years, but to obtain reports on the different phases of the Bureau's activities from those members who were most familiar with the subjects.

The Commercial Aspects of Lamp Equipment Division

Although new developments are few, there have been many improvements and extensions in existing equipment. The adoption of the term "luminaire" for the characterization of lighting fixtures and appurtenances of every description fills a long-felt want.

In industrial work the use of standard dome reflectors is becoming more general, coincident with a narrowing of the use of localizing lighting. Commercial lighting units show a tendency toward the enclosing type, owing to the realization of the importance of the maintenance factor in lighting. Considerations of maintenance have also influenced street lighting unit design. The trend of residence lighting and special applications of lighting for traffic and railroad signalling are covered.

Industrial Lighting Division

An addition is offered to the previous year's report of the "Lighting of Large Buildings" Division, from which the made in the past year, showing that the ease and speed with which an object is seen depends on the illumination. A realization of this fact by lighting salesmen is most essential and its appreciation by the factory manager will aid materially in the securing of modern lighting installations. Results of further "Productive Intensity Tests" are given and information regarding the status and provisions of Industrial Lighting Codes.

An addition is offered to the previous year's report of the "Lighting of Large Buildings" Division from which the consideration of large department stores was intentionally omitted. On further thought, it has been deemed desirable to include buildings of this type in this division. Information is presented concerning the value of this class of business to the central station. The advantages of good lighting are given, together with the most approved methods of illumination for this class of buildings.

No report is presented for the residence lighting division due to the exhaustive nature of the previous reports.

Electric Sign and Display Lighting

Reasons are given why the development of the sign and display lighting promises to be exceptionally high during the coming years. Conditions of keener competition and the American outdoor method of living contribute to an increase in display advertising. Sign statistics for the first time available, show the income derived from this class of business. Architects, to some extent, evidence an interest in signs and are now designing signs in keeping with the rest of the building.

Report of Store Lighting Division

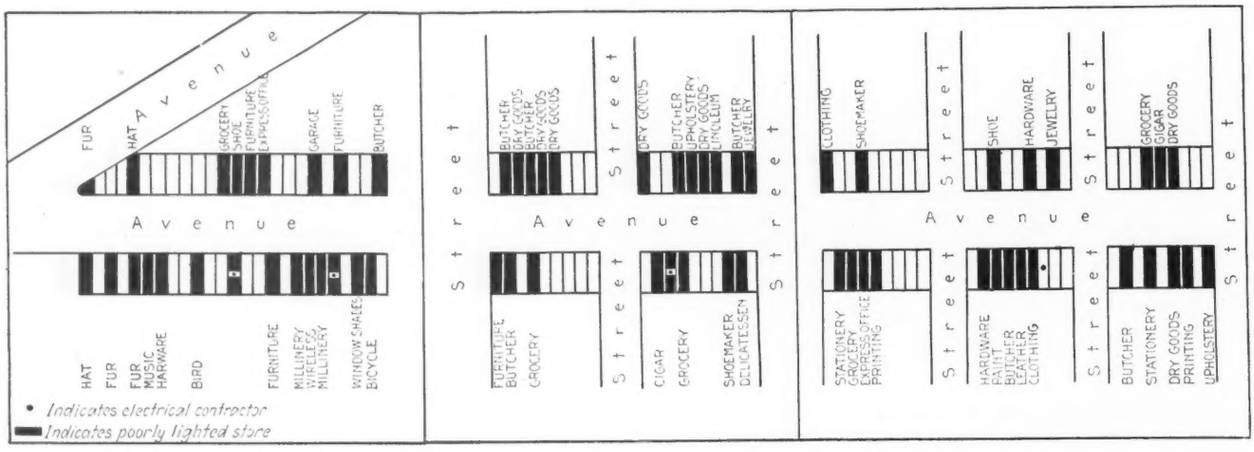
This report presents the information obtained in a recent store lighting survey, undertaken to supplement and elaborate on the results given in last year's report of store-lighting conditions in the city of Chicago. New data on maintenance and on show window lighting is included, together with the results of investigations which show in diagrammatic form the wealth of opportunity for the electrical dealer to secure more and better business in his own immediate vicinity.

The activities of the past year in the store lighting field are outlined, and solutions of existing conditions are suggested to central stations. A brief description is given of the new developments in store lighting equipment.

Street and Highway Lighting Division

The conditions controlling the development of street lighting during the past five years are explained briefly. Under "Progress" the trend of ornamental lighting, lantern units and globeless units are set forth with information concerning modern practice in street lighting. Other sections deal

"Quick," we shouted to the staff's lightning photographer, "get the man in the golf suit!" And not only did the trusty camera capture the knickered form of M. S. Seelman of Brooklyn, but also on the left Henry P. Wood of Boston, and on the right C. R. Skinner, chairman of the electric-vehicle section; C. K. Nicholls, New York Edison Company, and Fred Smith of Worcester, Mass.



In order to obtain statistics regarding present conditions, surveys were made in New York, Brooklyn and various cities in New Jersey to determine how effectively the electrical contractor is selling his servives to the merchants in the immediate vicinity of his store. Each survey takes in one or two blocks in a business section in which an electrical dealer is located. The investigators inspect the dealer's store, record the condition of the lighting and then pass on to the neighboring stores to determine whether or not present conditions are modern and if an opportunity exists for the electrical contractor to sell illumination to his neighbors. The diagrams show the results of some of these surveys and represent typical examples in which prospective business is literally next door or around the corner from the dealer. In several instances it will be seen that the dealer himself does not appreciate the value of proper illumination, and thereby sets a bad example for his prospects.

with arc lamps, highway lighting and public relations.

Many industrial exhibits have been installed by various interests throughout the country and plans are now under way to utilize these in connection with the activities of the Joint Committee for Business Development and the educational efforts of the Illuminating Engineering Society.

Our recommendation for the immediate future is that the efforts of the sales organization of the industry as a whole be devoted to the obtaining of increased intensities and, consequently, increased kilowatt hour consumption from existing customers, producing in the majority of cases increased income from the use of investment already made. We are all familiar with the fact that much of our meter and line investment is actually unused and, while this increased use of current may be on the low point of our rates, it is nevertheless where the best results obtain from a central station standpoint.

Electric Ranges Now Number 140,000

There are in use in the United States today about 140,000 electric ranges, as compared with 10,000 in the year 1915. It is estimated that at least 54 per cent of these ranges are installed west of the Rocky Mountains. About 6,000 communities with electric service in the United States have special electric-cooking rates.

In the year 1919 21,739 electric ranges were manufactured in this country. In the year 1920 about 41,000 electric ranges were produced. Both of the foregoing figures come from the Associated Manufacturers of Electrical Supplies.

In the year 1921 it is estimated 30,000 ranges were installed in the United States. In the year 1922 it is declared that 100,000 electric ranges will be sold.

At the same rate of progression, it is estimated that in the year 1923 130,000 electric ranges will be sold, while in the year 1924 175,000 electric ranges will be sold.

Labels Must Accurately Describe Contents, Rules Supreme Court

The right of the Federal Trade Commission, to require trade labels to accurately describe the character of the commodity labeled, under Section 5 of its organic act, has been upheld by the Supreme Court in a decision rendered by Justice Brandeis. The case decided was against the Winstead Hosiery Company, in which the Commission issued an order requiring it to discontinue the practice of marking on its labels that the goods were of wool, whereas they were largely of cotton. The company contended that the terms used in the labels were in general use in trade. The Commission contended that the public was misled by the labels. The Circuit Court of Appeals, 2nd Circuit, decided in favor of the company, holding that the Commission could not censor commercial morals generally; that the labels were established and understood in the trade, and that there was no monopoly or attempt to pass off goods of another quality. The Supreme Court, however, took another view of the matter, and reversed the lower court. Justice McReynolds was the only dissenter from the opinion. The opinion was rendered for the court by Justice Brandeis, and upholds the right of the Commission to require truthfulness in trade labels.

General Squier Tells N. E. L. A. About Broadcasting With "Wired Wireless" Through Transformers and Ten Miles of 60-Cycle Cable

WITH their electric-service lines extending over the entire country and reaching even to the isolated farmer, central stations are the logical mediums for broadcasting entertainment, news, etc., over their circuits and through the lamp sockets, declared General George O. Squier in addressing the N. E. L. A. technical session, at Atlantic City.

Judging from the popular demand for existing broadcasting, he expressed the belief that broadcasting through the lamp socket by means of "wired wireless" or carrier currents should meet with universal public favor. Hence it should be one of the best opportunities open to public utilities for creating good will. The public has become accustomed to look to the electric socket for every domestic convenience so far, hence they should be given the opportunity to look there for entertainment as well.

That the service can be rendered has already been demonstrated in a convincing manner, the high-frequency carrier currents traversing successfully both cables and transformers. Recently broadcasting over ten miles of cables and through the intervening transformers was successfully accomplished in Chicago with a 50-watt sending set, the transmission being even better with alternating than with direct current.

Although some technical difficulties still exist, the best way to achieve results, advised General Squier, is to experiment with "wired wireless" for broadcasting.

Wiring Committee

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G. E. MILLER, *Vice-Chairman;* A. L. NELSON, *Vice-Chairman*

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GEORGE BAILEY
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H. H. WOOD

THE Wiring Committee has been at work through sub-committees for some time in attempting to formulate standards as to the amount of wiring that should be installed under different conditions.

This has been a very difficult problem, since enthusiastic electrical men will often put in 10 or 15 or 20 sockets and receptacles to a room, and it hurts their feelings to have any less number called standard or reasonable.

There are two divisions of this subject. One as to the number of circuits that should be put in for a given area, and the second as to the number of sockets or convenience outlets that should be put into a given room. On these subjects the subcommittees have finally presented two reports; the first on the number of circuits, a report presented by Messrs. S. E. Doane and G. E. Miller, and the second, a report of the number of outlets as prepared by the chairman of the main committee.

The committee is not yet ready to recommend these as definite standards for universal adoption, but instead believes that they should be fully discussed not only by the central-station people but also by contractors, architects and real-estate people.

These two reports have therefore been published as interim reports, to serve as basis of general discussion and further consideration by the committee before any definite standard is adopted.

In the meantime, the committee believing that the subject of selling wiring should be given more attention, has provided for a large subcommittee of commercial men on this particular subject, whose report follows:

Robert S. Hale of Boston, chairman of the Wiring Committee, and S. E. Doane, chief engineer of the National Lamp Works at Cleveland, blithesomely breast the boardwalk breezes.

Selling Adequate Wiring

The number of jobs that are sold, the volume and completeness of wiring installations, depend upon the efforts of the manufacturers, the central station, the electrical contractor and the electrical dealer to sell the idea of electrical service to the architect, the building contractor and the public.

Central stations are most permanently affected and suffer indefinitely from incomplete wiring installations.

While in many cities electrical merchandise is sold by the central stations, they have surrendered without restriction that branch of the business which is the foundation for future growth.

Educational work must be done with the following groups in the order of their importance:

The Electrical Contractors
The Architects
The Building Contractors
The Public.

Since wiring must be sold not as wiring, but merely incidental to the use of electrical equipment, then the volume depends upon our ability to properly inform the electrical contractor, architect, building contractor, and the public on the benefits to be derived, the comfort produced and the time and labor saved by that tireless and dependable servant, electricity.

The Electrical Contractor

In most cases the electrical contractor is a mechanic and not a salesman. The mechanic executes orders handed down, so with the electrical contractor who executes an order from one expressing a desire for electric light, and both have in mind but one thought and that is light at the lowest possible cost. Consequently many home installations consist of a pair of wires from the basement to the second floor, with one outlet in the center of the ceiling of each room. Such an installation without switches or convenience outlets will not permit maximum benefits to be derived, and the sales of additional equipment, portable lamps and appliances, has been greatly handicapped.

The wiring contractor, his wiremen and helpers need to be not only informed, but convinced, that wiring installations should be made to provide scientific illumination and to accommodate the use of the many convenient time and labor-saving devices. For example:

House wiring should be installed with the thought that the range, dishwasher, power table, refrigerator are of first importance in the kitchen, and that the laundry must be completely equipped with a washer, dryer, ironer and hand iron, and so on throughout the house, providing single, three-way and four-way switches to most conveniently control lighting circuits. Convenience outlets should be provided in:

Dining Room—One floor outlet near center of room for table cooking appliances. Two outlets about 5 ft. apart in wall which will be used for buffet to accommodate the use of candlesticks. One outlet near entrance to pantry or kitchen equipped with duplex receptacle for cooking appliances on serving table or tea wagon and to make it more convenient to connect portable vacuum cleaner.

Breakfast Room—Outlet for cooking appliances conveniently located.

Living Room—Two duplex outlets in shelf of mantel—one near each end for mantel lamps, and fan. Three to five convenience outlets to accommodate table and

Henry Cole of the Westinghouse Company's Atlanta office started to mention something about the wonderful climate of Georgia and the South, to J. G. VanKuran, the Westinghouse manager from Los Angeles—! ! ! Might as well try to interest St. Peter in paving streets with asphalt.

floor lamps, electric piano, talking machine, etc. Sufficient number of these outlets should be installed to accommodate any likely rearrangement of furniture.

Bedroom—Three or more outlets located to permit rearrangement of furniture and make it convenient to connect warming pad, blanket, curling iron, vibrator, violet ray, portable lamps or bracket lamps on bed, dresser, or dressing table. For maximum convenience in using small appliances or vacuum cleaner in bedroom, one or more of these outlets should be located 36 in. above the floor.

Bathroom—One outlet equipped with duplex receptacle, so that heater and hair dryer or any two appliances can be used at the same time.

Other rooms, halls, porches, etc., should be wired having in mind every possible use that might be made of that part of the house and outlets provided for both present and future needs.

In all rooms provided with wall brackets for lighting, the outlets should be so located that a rearrangement of furniture is permissible, and so that the brackets may be moved with the furniture and attached to a wall outlet conveniently located. These outlets should preferably be equipped with Elexit receptacles.

Architects

Through the architect a large number of builders can be reached.

It is apparent that for some reason the architect has been feared or neglected, or perhaps we have felt that he was well informed on the subject of adequate wiring.

Fair-minded architects—and most all are fair-minded—are receptive to new ideas on electrical installations, and appreciate suggestions for improved wiring plans.

The architect, like every other individual of every other trade or profession, wishes to give maximum service to his clients and is open to conviction on the importance of providing facilities for the use of modern electrical equipment.

A standard set of plans furnished to the architect, showing outlets and printed explanation of the use of each, together with verbal discussion, will serve in most cases as a key and guide for specifications on future plans.

Many architects recognize that electrical development has been so rapid that they have not been able to keep pace with its progress, and some effort along this line may result in turning over requests for electrical specifications to someone better qualified to do that part of the work.

The Building Contractor

Each building contractor prides himself on being able to build and equip a better house for less money than his competitors, consequently he is receptive to suggestions that will add to the merit of his proposition.

In many localities building contractors have not only been sold on the idea of providing for electrical equipment, but have gone farther and have actually installed some of the major appliances and sold the house equipped as an electrical home.

The Public

Last but not least in the scheme of things, comes the big boss, the public, who have put little interest in wiring and whose interest has been but partially aroused to the many advantages of electrical service.

The public must be reached from as many angles as possible, always keeping in mind that sales will depend upon efficient and satisfactory services rendered, rather than upon the quantity or quality of material used in the construction of a piece of equipment. It is possible that sales have been retarded by the use of too much printers' ink elaborating on the design, workmanship and material, and not enough on the advantages of possession and use.

Free Advice on Wiring Plans

We must carry on, continuing some of the old methods and devising new ways of attracting attention that will result in actual possession. In addition to the present schedules of publicity and advertising, there are several plans that will sell more wiring by creating a want for electric equipment.

Architects, builders and prospective home-owners welcome an opportunity to consult some competent electrical man on the number, location and purpose of electrical outlets. A service of this kind should be performed by a non-commercial organization, for the general good of the business, otherwise those desiring information will hesitate to ask for assistance that will result in obligation to the particular commercial house furnishing the service.

Suggestions to Prospective Builders

Names of prospective builders should be secured from building permit records and other sources, and suggestions on wiring may be offered by the aid of a standard floor plan on which outlets are located with arrow pointing to outlet from printed marginal explanation on why the outlet should be provided.

In addition to the general plans, special sketches of kitchen and laundry layouts can be furnished to assist the builder to arrange these workshops of the home so the work can be performed most satisfactorily and efficiently.

Brief but convincing facts in favor of electrical appliances and devices should accompany wiring suggestions.

People buy some things just for the pleasure of possession. Not so with wiring.

Nobody wants to buy wiring any more than a farmer wants to buy a paved road; he would much prefer to obtain his transportation by the air route, if that were possible. Just so our customers would prefer to obtain electric service by wireless if possible. You cannot dress up a job of wiring and make it look attractive, like a silk shirt or a Rolls-Royce—and there is no use trying. The thing itself has no drawing power.

By use of the means outlined above, and many others will suggest themselves, we can create in the mind of the public a desire to have in the home the store, the office and factory all the conveniences, comforts and labor-saving devices and luxuries which we know so well are made possible by modern lighting, domestic appliances, and commercial electrical devices, on the market today.

The man who is ready to build is already sold on wiring as a matter of necessity when he starts to build—what we need is an effective method of selling him *more* wiring than he thinks is *enough*. It is all a matter of education, and by proper co-operative effort, as previously outlined, results are bound to follow.

Standardization of Plugs and Receptacles

The manufacture of the old non-standard types is rapidly disappearing and a large number of the manufacturers of heating devices, as well as many of the manufacturers of portable lamps, are using and selling these standard plugs.

Some of the old types now non-standard are still being sold in order to work off old stock. It will take some years before the old installations are all changed over, but the situation is satisfactory on the whole.

The Plug at the Appliance End of the Cord

The manufacturers report that those who use the round prong are getting together on interchangeable dimensions, but that no compromise is at present in sight between round prongs and flat prongs. Of flat prongs the tandem design is the one most used in spite of the fact that parallel blades were the practically unanimous choice for the attachment plugs.

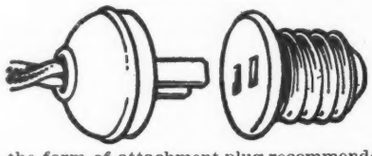
As noted in our previous reports, the existence of so-called Universal, Fitzall, T. & W. and other plugs that take both round and flat prongs is a solution of the question of interchangeability, but these plugs are seldom as satisfactory in service as the plugs designed for prongs of a particular design.

Polarization

The question of the grounding of frames of portable devices is closely connected with the question of polarization of circuits and of polarization of the plugs and receptacles.

The present standard attachment plug is designed for polarization in that the slots are of different width and the plugs can be similarly made with blades of different widths, so that a

The Standard Plug with Parallel Blades



is the form of attachment plug recommended as standard by the Wiring Committee of the N. E. L. A. It is now made by thirteen competing manufacturers, and is furnished on over one hundred leading lines of household appliances.

plug will connect to the receptacle only correctly.

The question of polarization of the attachment plugs where the cord connects to the iron has not been seriously considered, so far as we know.

If the frames of portable devices are to be grounded by a third wire, then the polarization of the present plugs and receptacles does not enter, since the third wire would be entirely independent of the ordinary cord unless a three-wire cord and a new three-pronged plug and three-hole receptacle should be introduced.

The main question is that of grounding the frames of these portable devices and is now under consideration by the committee. Certain people are recommending it, and it is said that it is now included in some rules, but, so far as we know, it is not being enforced anywhere, at least as applicable to the small household portable devices.

The question as to whether a frame and also as to whether a circuit should be grounded or insulated would seem to depend on which condition can be most permanently and securely maintained. If a frame will always be permanently insulated from the potential wires, then it is perfectly safe. Again, if a frame can always be permanently grounded it is perfectly safe. The danger comes in when a frame or circuit may at times be grounded and at times be insulated.

In the case of ordinary circuits, there appears now to be no question but that it is easier to maintain permanently and securely the condition of grounding rather than the condition of being insulated.

The thing that makes the condition of grounding easy to maintain is the existence of multiple grounds. A single ground may become disconnected, but when there are multiple grounds, it is exceedingly improbable that all of them would get disconnected at the same time.

In the case of frames of small portable devices it would seem to be difficult to get multiple grounds, and in that case the question would become the question as to whether the chances of a break-down in the insulation is more or less probable than a chance that the device may be connected incorrectly to the circuit.

In view of the millions of devices and of plugs and receptacles now in service, it seems to the committee improbable that we should ever change to a system of a three-wire cord, one of these wires being a ground wire, and of a three-prong plug which would connect only to a three-slot receptacle and not to a lamp socket, and it would, therefore, seem probable that we shall continue, for the case of these small portable devices that are used on household circuits and also lamp sockets, on the basis that the frames shall be permanently insulated from the potential wire and not be grounded.

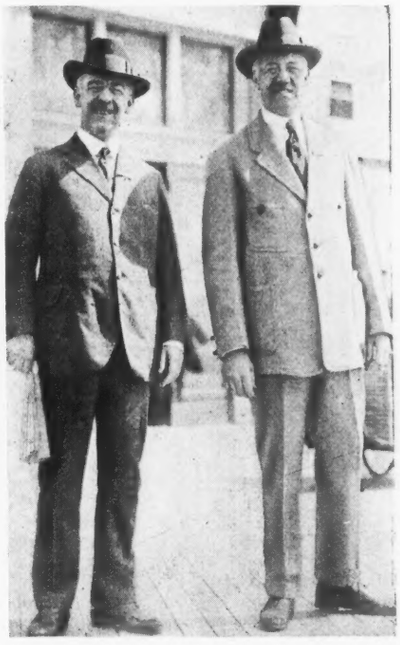
This subject, however, is under consideration by the committee and will be made the matter of later reports.

If there is any general demand for the grounding of these frames, it is obvious that the experiment can be tried in small districts first without waiting for a national rule calling for the change of all the existing cords, plugs, and receptacles at the same time.

Solid Neutral

This is now allowed by the Code in all situations except in the final two-wire branch from three-wire circuits.

To omit the fuse on the grounded side of these two-wire branches gives a safer as well as a cheaper installation,



W. E. Robertson, general manager of the Robertson Cataract Electric Company, Buffalo, and silver-tongued expositor of the functions of the jobber, accompanied by Earl Whitehorne of our own staff, who has the gift of pushing a pencil with somewhat the same salubrious facility as "Bill" Robertson talks.

and there appears to be some probability that this may be allowed by 1923.

It is, however, desirable that each company should try to get it allowed in its district even before it is put in the general Code, since the Code does not prohibit any local inspector or inspection authority from changing the rule in his district if the changed rule gives greater safety and better results.

660 Watt Rule

The principle of the recommendation of the committee in regard to this is to give up the rating of circuits by the nominal connected load or nameplate rating of small motors, etc., and, instead to control the size of the final circuit first by the fuse and second when desired by providing that each final circuit shall supply not over a certain number of square feet of area (the figure appearing to be in the neighborhood of 800 square feet), or the same thing can be accomplished by providing that the final circuit shall not feed more than a certain number of rooms.

In regard to the fuse, the old Code rule was 6 amperes, which was practically never observed, and larger was used. Now the Code rule has been changed to 10 and a very large number of inspection districts are allowing 15 either openly or tacitly.

At least one company reports that it is using 20 ampere fuses on the final circuit in its district without any sign of trouble whatsoever.

However, there would seem to be no reason at present for going over 15.

The real point is to prevent overfusing by the use of 30 ampere fuses, etc.

To provide for this, the committee recommends that the ordinary fuse for household circuits, whether it be 10 amperes or 15 amperes, continue to be made as at present, but that any larger fuses which can be connected to the small or final circuit should, so far as practicable, be supplied by central stations only to qualified persons, and that in any case, these larger fuses should be given some distinct marking, as by being painted red or green, so that the ordinary householder can be warned that, while he may restore service by putting in the ordinary fuse, yet that he should be careful not to put in the larger fuse of the distinctive coloring without consulting some expert who would know if it was safe.

Flatiron and Other Fires

The committee reiterates its recommendation of previous reports that the most practical method to reduce the number of fires caused by the careless leaving of flatirons in circuit is not to require any special wiring device, pilot light, etc., but instead to educate the public as far as possible.

We believe that to educate the public by means of circulars, articles, etc., calling their attention to specific definite dangers of electricity will not hurt our industry, but instead will help our industry far more than the present situation where all electrical fires are lumped together so as to include not only the real electrical fires due to defective wiring, but also the carelessness fires due to leaving of flatirons in circuit and in many cases including such things as fires due to street railway current entering houses over gas pipes or water pipes and even due to electrostatic sparks in gasoline cleaning establishments.

The committee is discussing a classification of electric fires, so-called, into three classes.

First. Fires due to static electricity, street railway current entering buildings over gas and water pipes, electric ignition systems of automobiles, etc.

2nd. Fires due to defective installation or apparatus such as sparks from motors, defective wiring, etc.

3rd. Fires due to misuse of properly made installations, such as flatiron fires, misuse of portable cords, etc.

A Street of Electrical Homes

Cleveland Builder Has Put up Forty-three Houses, Each Equipped Complete with a Built-in Clothes-Washer, Dryer, Ironer, Range and Refrigerator—Additional Appliances Are Offered for Sale with Each Dwelling Being Financed by "Electrical Mortgage" with Two Years to Pay

By FRANK B. RAE, Jr.

THE country is "sold" on the electrical home idea—there is no room for argument on that. True, a lot of electrical people still stand aloof. The can't-be-done and my-conditions-are-different alibis are, as ever, worked to the ultimate limit by those who won't admit that the sun is shining till after they're sunstruck. But you may accept it from me, the electrical home is no longer an ad-man's dream; it is a solid reality.

Even in Cleveland.

People in the electrical industry have acquired the habit of kidding Cleveland. Comes a story out of the Fifth City about how they are setting Lake Erie afire electrically, and some wiseacre in the trade responds with raucous comment in which mention is made of the male bovine. This is unkind. For the cold truth is that Cleveland has done and is doing quite a number of exceptional stunts in the way of electrical development, and not the least of these is the way they are selling the electrical-home idea not only to the public but to the builders and landlords of the town.

Washer, Ironer, etc., Built In, Like the Bathtub and Furnace

Here, for instance, is a Cleveland street of newly built, moderately priced homes in each of which the washer, the ironer, the electric clothes dryer and other labor-saving equipment are built in—just like the bathtub and the furnace! The builder put 'em all in, and he advertises the electrical features exactly as he does the other built-in talking points. The floor plans printed in his circulars show the locations of all the major electric devices just as they show the location of the chimney and the clothes chute. It's an honest-to-goodness attempt upon the part of a smart realtor to cash in on the public's interest in the servantless electric home.

"Happiness in Every Room" is the slogan adopted for the advertising of these electric homes by the Horobin Company. "Why the term 'Electrical Home'?" repeats the writer of the realtor's sales booklet. "Because you will find in the construction of these homes all the electrical work necessary to serve the various household aids which relieve the home-maker of so many burdens."

Altogether there are 43 houses in this 1922 development—26 on Shaker Heights and 17 in the Lakewood district of Cleveland. The builder is the Thomas H. Horobin Company, the supplier of the electrical appliances is The Electrical Necessities Company, and no less famous an outfit than the Van Sweringen interests are (so they say) wet-nursing the project. If this venture is a success the same people will erect 75 similarly equipped homes next year. The land, financing and plans are all arranged for; whether they are built as electrical homes or simply as a job lot of ready-builts depends upon the success of this first group of houses.

The electrical equipment recommended and installed includes range, washer, ironer, clothes dryer, and refrigerator—but in addition a vacuum cleaner, cabinet-type sewing machine, fan, radiant heater, flatiron, and percolator are offered for sale with the house, the cost being lumped into an "electrical mortgage" which the builder plasters on top of the other mortgages, and which is paid off in two years.

The wiring of the Horobin houses was done according to specifications by the Electrical League of Cleveland, which maintains a bureau to advise with home owners, builders and architects. It is true that in this case the builder could not quite swallow the recommendations whole; he cut out the dish-washing machine as suggested by the League, and trimmed the wiring somewhat. But

by and large, it is an adequate job of wiring, an up-to-date selection of switches and outlet equipment, and a fifty per cent increase in convenience over what is generally considered necessary and installed in homes of this type as the following schedule shows:—

LIVING ROOM: Three convenience outlets located a few inches above the baseboard; two over mantel for candlesticks; switch controlling porch light with house number; switch controlling light in upper hallway.

DINING ROOM: One center lighting dome; one convenience outlet; one side-wall switch controlling dome.

KITCHEN: Electric range; outlet for flatiron located beside and above built-in folding ironing board; light outlet above sink; electric refrigerator in entry.

LAUNDRY: Electric clothes dryer; electrically heated ironer with light above; electric washer with connection; light in front of furnace.

BEDROOMS: Center light and side-wall control; one convenience outlet.

BATH ROOM: Light over medicine chest and one wall outlet.

A Builder Who Is Selling the Electrical Idea

In placing these homes upon the market, Mr. Horobin completed, furnished and equipped a model house and is using it as his sample to sell from. Wired furniture, the first that has been seen in Cleveland outside of that shown in the League's own exhibition electrical homes, is installed. The range is hooked up and can be shown in actual operation. The electric cleaner is not only exhibited as a part of the equipment, but is used to keep the model house clean for the public's inspection.

Horobin's advertising is a revelation, for fully one-half the circular matter is devoted to the electrical convenience of his houses. "Here you can cook electrically," is one headline, followed by a complete presentation of the electric range.

A Bit of Electrical Selling Argument from the Builder's Circulars —

The Electrical Laundry

With the electrical equipment in the Horobin-Built Homes, the laundry work for an average family of four persons costs 58 cents per week for current, and there is no back-breaking labor connected with the affair, nor any need to be annoyed by an undependable laundress.

The Washer does all the washing and wringing for the price of a stamp..... 2 cents

The Dryer dries the clothes, pure and white, for the price of an ice cream soda.20 cents

The Ironer does most of the ironing for the price of two cigars.....30 cents

With the hand iron one may touch up the ruffles and gathers for the cost of a car ride..... 6 cents

All the laundry work is done for about the price of a good movie show.....58 cents

In a month the cost is $2.32, and the saving in laundry bills will be from seven to ten dollars.

"The electric laundry" is another chapter in the leaflet, followed by a cost table which convinces the prospective purchaser of the practicability of the electric laundry.

The clinching argument is: "You will find in the construction of these homes all the electrical work necessary to serve the various household aids which relieve the home-maker of so many burdens. The wiring of the houses, planned by the Electrical League of Cleveland, is unusually complete; provision is made in every room for the convenient use of 'electric servants' to do the cooking, the washing and ironing, cleaning and other tasks." All of which is quite different from the usual real estator's patter about built-in china closets and chimneys with hole-proof flues.

The terms of buying the electrical equipment of these homes are so flexible that the purchaser may omit any appliance which she already owns and receive a proportionate throw-off from the price. It is to be noted, however, that the price as first quoted includes all the electric items; one buys the house "as is" and then can secure a rebate for any equipment not needed. A separate purchase contract covers the appli-ances—an "electric mortgage" it is called—under which a part of the down payment applies to the electric wares and the balance is spread over two-year installments. The total amount of this "electric mortgage" is approximately $1,000.

Twenty-six of these Electrical Homes, each of them in step with the most recent developments in labor-saving and comfort-conservation for the household, are located in East 137th Street in Shaker Heights, Cleveland. Eighteen more are on Parkwood Road, Lakewood, a heavily wooded section.
The wiring of the houses was planned by the Electrical League of Cleveland, and is unusually complete. Provision is made in every room for the convenient use of "electric servants" to do the cooking, the washing and ironing, vacuum cleaning, and other tasks.

Training Salesmen to Sell Radio

When the "Craze" Has Passed, Radio Will Still Be with Us for a Long, Long Time—Realizing Its Permanence, Progressive Dealers Are Remembering That One Trained Clerk Is Worth Ten Untrained—and Therefore Are Training Their Store Salesmen Now

By JOHN C. MILTON

RADIO is probably the most highly specialized business with which retailers have ever been indentified. The selection of merchandise is not especially difficult, if a dealer is careful. Nor with the present popularity, is the resale particularly difficult. Yet progressive dealers in radio, seeing the possibilities of the business and realizing its permanence, are employing the most modern and up-to-date methods in training their salesmen to cope with the intricate situations in which they find themselves when face to face with customers, and therein lies success or failure in radio merchandising.

Three types of retailers, the exclusive department in the modern, large department store, the small store devoted exclusively to radio, and the smaller store where radio sets were carried in response to the demand, but yet were a side line, were asked the single question, "How do you train your salesmen to sell radio?"

"Keep up with the boys and you'll be able to handle any class of trade, that's what I tell my salesmen," said the radio manager in one of a big city's leading department stores. Then he went on.

Personality and Patience Are Needed

"Yes, strange as it may seem, the radio salesman that can keep up with the fourteen-year-old lad in technical knowledge, knows enough radio to talk intelligently to the most confirmed "radio nut." Any salesman with personality and patience can inform himself so thoroughly on the specifications of the sets we handle and their operation, that he can sell the mere fan.

"But let him attempt to talk generalities and romance to the high school lad—let him make a mistatement that displays an ignorance of his subject and nine times out of ten his chances to make a sale are gone.

"The great majority of our sales are made to boys or to adults purchasing for boys. And in the latter case the boy usually accompanies the buyer—in most instances, the father. It's mighty interesting to note how "Dad," often forty or fifty years old, listens with mingled awe and respect while, "Sonny" talks to the salesman. Dad may pay, but Sonny does the buying. Your typical boy wants to install his own set and generally so convinces his father during the course of the sale, of his ability to do so that father digs down a little further to get the best set his pocket can afford.

Learn How to Sell to the Boys

"That's why I say to my salesmen, 'Learn to sell the boys.' "

And his salesmen *can* sell the boys.

Then because his questioner's curiosity was aroused the manager led the way through the entire department, explaining at length how he had trained his salesmen.

First he went to the roof of the tall building where complete overhead equipment for broadcasting and receiving had been installed; then back to the completely equipped broadcasting room and finally to individual rooms where receiving sets of various makes and radius had been set up.

This particular manager had made his own job. Becoming convinced early of the possibility and permanence of radio as a business he completely sold his proposition and himself to his firm. Unlimited cooperation and the necessary appropriation was granted him. Because his own interest was so keen, selecting and training his salesmen were comparatively easy.

He knew what he wanted. Stock and equipment were ordered. Then he picked his original salesmen—four in number—now eleven. When the equipment arrived, he, with his four salesmen under the direction of a competent installer set about the construction of his own station. Together, as they worked, they learned the fundamentals, learned why they installed this aerial, why they did this, why they did that, what the result would be. When the station was completed all were fairly well versed in the technical points.

Then, under stress of selling, the real training began. Salesmen were placed on a profit-sharing basis and thus given the incentive for increasing their own store of knowledge and their earnings.

Two evenings a week all met as a class. First they went to dinner. Then they returned to the store for entertainment—and for instruction under a professor from one of the city's technical schools. As the sales force grew, the new men came into the class and received through practical demonstration the fundamentals of radio science.

"My men know their business," said this manager, "and they know how to distinguish between the so-called "radio nut" and the mere "radio fan" because they do know radio. They can talk intelligently of antennae, detectors, etc. They know the radius of this set and that set. They have exact information concerning all broadcasting stations."

Keeping the Main Business in Mind

But these classes were not altogether for technical instruction. The main business of the course was selling. Through the professor, the men learned how to distinguish between prospects who knew radio and those who did not.

But they needed no instructions to let the buyer talk under intelligent direction until he exposed his own knowledge or ignorance of radio. Classification of a prospect is easy. If a "nut," any man in the department can sell him technically. If a "fan," he can romance on the receiv-

ing of broadcasting service to the prospect's entire satisfaction.

The salesmen were further allowed to try their hand at writing the advertising copy for the daily papers. In this way they learned how to get the interest appeal into their sales talk. For their offerings were mercilessly criticized, not only by the manager of the department but by the advertising manager of the store as well.

The broadcasting station was turned over to the use of one of the daily papers and the salesmen in turn are present at these evening sessions. The more experienced, the original five, including the manager, take complete charge. All are still students, successful salesmen because their own interest in their work is kept alive.

Naturally the small store has neither the space nor the capital to go into so broad a merchandising plan. Yet the progress that some of the smaller exclusive radio supply stores have made in training men to sell is really astonishing.

The writer was attracted by a small, neat cardboard sign in the well-filled and displayed window of a small, main floor store. It read:

"We Wish to Announce to the Public
That Mr. Andrew Brown
Is in Complete Charge
And Will Be Glad to Answer
Any or All Questions
Regarding Radio.
No Obligation to Purchase."

Taking advantage of the offer the writer went in, asked for Mr. Andrew Brown, and, being received courteously by him, proceeded to ask some questions.

This store with three salesmen only, was doing a remarkably thriving business. All the men were wide-awake, but the one real expert in the place was Mr. Brown.

The under-salesmen were trained to refer all difficult questions to him. He was in fact merchandised to the trade as "the expert." According to Brown, they were not to attempt to answer questions that were beyond them. Yet where they were able to handle the situation, it was distinctly understood that he was not to be called upon. However, when he was called upon to answer the question, he did not take the customer away from the salesman, except in unusual cases, but explained the point in question to both the salesman and the prospect.

"Learn how to sell to the boys," advises a successful radio dealer, in making suggestions for training salesmen. "Even when Dad does the purchasing, he frequently is buying for the boy. A satisfied boy means a satisfied Dad and that builds business."

Brown kept a memorandum of all such questions submitted and the salesman who brought them up. These memoranda were discussed not only privately with the salesman in question, but in the weekly sales meeting. In this way the men were made to lean upon their own resources more and more, becoming more familiar with their business and more efficient every day.

The only way to train salesmen to distinguish between "nut" and "fan" according to Mr. Brown, was to keep him interested in gradually increasing his own store of knowledge. The average "nut" talks of antennae and wave-lengths—the average "fan" wants a set that will let him listen to some broadcasting station a thousand miles away. Any salesman with common sense can tell one from another. To sell them is *the* problem. Application to business, willingness to learn and self-education in radio, plus a natural sales ability will enable the salesman to handle all classes of trade.

Answering Inquiries Serves a Double Purpose

And speaking quite frankly, Mr. Brown declared that his setting himself up as an authority competent to answer customers' inquiries was as much directed toward the training of the salesmen as it was toward the edification of the prospect. "It keeps them stepping to keep up with me," he said, "and, it keeps me stepping to keep ahead of them."

In this small store, because of lack of facilities, no equipment saving a receiving set had been installed. Familiarizing themselves with this, each of the salesmen had been presented with a set for his own home use, with the idea that the installation and the operation of the same would familiarize him with the technical details. And with the further idea that the fascination of the radio itself would be sufficient to keep up the keenest interest on his part.

Trained Salesmen Essential to Prosperity

In a hardware store in a prosperous suburb of the same city, about thirty miles out—population about four thousand, radio was a side line. No one man in the store knew much about it. But all were willing to learn. The proprietor was keenly alive to the fact that if he were to prosper through radio, he must train his salesmen. Otherwise he could not compete with the city stores who were close enough to cater easily to his own every day trade.

Yet even here, steps had been taken to make each salesman familiar with the line. A first class receiving set had been installed. For the dealer saw the importance of interesting each man in radio itself before attempting to teach him to sell.

For weeks after it had been installed the men and the two girls employed in the store had been coming back in the evening after their

work was done, practically every night, to pick up this or that station—to be entertained—and gradually—although they did not perhaps suspect it—to become familiar with a few of the technicalities involved. They began to talk more intelligently of radio, to tell their friends about it outside the store and thus to create a general spirit in their own particular store as a radio headquarters.

The merchant, quick to see this, began a series of visitors' nights. A certain clerk was asked to invite as many of his friends as the apparatus would accommodate to come to the store on a certain evening for the express purpose of enjoying a program from this or that station. And they were glad to come. Some bought. Many did not. Some who did not, went to the city to buy. But all in all the plan has been very satisfactory and quite profitable.

Such sets as were sold in this store to fans, were installed by a man hired by the merchant. Satisfactory installations under this arrangement were easily guaranteed.

Taking on a Partner

And just before the writer left this store the proprietor remarked confidentially that he was taking in as a partner a young man who did know radio. He was doing it, he said, because he thought there was a great future for the business even in a small town. This man, he stated, would be able to train his present help to the same point of efficiency as that displayed in their demonstrating of phonographs or washing machines.

So there *does* seem to be a place for the experts in the line!

Radio sets will ultimately be so reduced in price that they will be sold to people of moderate means. The installment plan of sale will place them in millions of homes just as it has placed millions of phonographs and household appliances. What was the rich man's toy will become the workingman's pleasure and a means to his further mental development. That stage is rapidly becoming a reality. And as radio develops, salesmanship must develop. Otherwise a comparatively few big retailers and mail order houses will supply the entire demand for equipment. From a broad survey of the field, it would seem that electrical supply houses and dealers in electrical specialties are determined not to let that happen. Within the last few months there has been a general awakening to the need of trained salesmen.

Some Hints on Training Salesmen

A few general rules for training salesmen can be laid down.

First of all, do not neglect or overestimate the importance of installing a receiving set in the store. Interest in the proposition he sells is the first requisite to the salesman's success. And the salesmen that can't get interested in working a receiving set in picking up KYW or XTX or any other station, can't get interested in anything! By all means give your salesmen a chance to play. The play will become mighty serious business before they are through.

Second, knowledge of radio is important. In many cases interest in radio itself, enchanced by the opportunity to gratify that interest by actually operating the set, will lead the man or woman to get right down to conscientious study of the subject. Use the literature prepared by radio manufacturers. Buy a few books for the store. Find out what books are in the public library. Advise your salesmen to read them. If possible employ an experienced radio man. Be sure that he is the type that can instruct without offending, without imposing his superior knowledge upon his co-workers in an odious way.

Third, manifest an interest in radio yourself. Be interested in getting prospects into your store for your salemen to work on. Be enthusiastic. Your state of mind will reflect itself to your employees. Advertise in the local papers. Arrange little evenings of pleasure for invited groups. Thus you will gradually force radio into a place of prominence in your community.

Set a Moderate Price on Service

Fourth, look ahead to furnishing installation service for your less affluent trade. The rich man can order an expensive radio set and say with a wave of the hand, "Send a man up to put it in." You can hire an expert installer and charge your rich customer the price the work is worth.

But how about the man of moderate means? It strains his pocket book to get the set he wants, let alone paying a fancy price for the installation. Either he must do the work himself or you must do it for him at a moderate fee. If he is a typical "radio nut" he will want to do it himself. But if he is merely a "fan" all he is interested in is having the set work after it is in. He wants to listen to Pittsburgh at 8:30 and to Chicago at 10 pm. It's up to you to enable him to do it.

Therefore your salesman must be able to do the work of installing himself, or to explain it so that another man can do it. This mechanical work is aside from the technical side of radio. Most any man with a ready cut house and an instruction book can put his house together with hammer and nails. So it is with radio. Most any man with simple instructions can do the purely mechanical work.

Impress upon the salesman the need for knowing how. The question will often come up in his selling. And if he can promise real service to the prospect in installing the set, you can be sure that the set will render satisfaction. Bear in mind that radio is reaching the stage where it is practically fool-proof. Let your salesman convince his prospect that he can install his set and maintain it economically and the purchase price dwindles at once.

Fifth, try to get every salesman interested in a set for his own home. The pride of ownership will go a long way toward making him a competent salesman.

Sixth, impress upon every salesman the importance of letting the prospect talk until he convicts himself. Don't allow them to confuse an interested prospect with technical terms that have no meaning to the uninitiated. Train him to talk from the romantic side. Such a prospect wants to know from what distance his set will receive. He will reach the technical stage later on. On the other hand, however, don't let a salesman dodge the issue with generalities when a confirmed "radio nut" comes in. Better let him turn the prospect over to some one who knows.

Remember that radio is only in its infancy. Its development is sure because its influence on civilization is permanent. Right now is the sowing time that will bloom into great fields of profit. Pioneering is hazardous only to the unprepared. Right now, as a dealer in radio sets, you are a pioneer in a virgin field. The results depend to a great extent upon your own knowledge of the field and the tools you work with. Your salesman and your store are your tools. One trained salesman is worth ten untrained. See to it that one, at least, is trained.

This Electric Shop Holds Regular "Exams" to Test Salespeoples' Knowledge of Appliances

MARKETING consists of five parts, talking, showing, advertising, transporting, and financing the purchases the customers make. If any one of these parts is lacking sales are bound to suffer. One weak part in the selling of electrical appliances is loose talking.

Too many people who sell appliances do not know enough about them or the cost of operating them to talk intelligently. As a consequence purchasers and prospective purchasers do not talk about them intelligently, and it must be borne in mind that the talking these people do is after all the most important talking that is done. These purchasers and prospective purchasers are always talking. They are always showing their appliances and either advising for or against purchasing.

Checking Up the Salesman's Knowledge

How is the information that salespeople have about electrical appliances to be checked? Alfred H. Allcott, manager of the Electric Shops of the Narragansett Electric Lighting Company of Providence, R. I., seems to have hit upon a very practical and a very effective method.

Mr. Allcott realizes that it is what salesmen know about appliances and what they say that determine how people in general will talk about them. Of course it is important to keep records of the sales each salesman makes, but the sales made do not always indicate what the salesman knows about appliances and how satisfactory these appliances will prove to the purchaser. Salesmen have been known to say anything in order to make sales and to cover up their ignorance by extravagant statements.

Accordingly Mr. Allcott has for several months been checking up the actual information of all his salespeople as well as their sales. This can be done so easily and so accurately that it is a wonder that it has not always been done. There is certainly no question about its value.

This is the way he goes about it. One appliance is considered at a time. A list of the questions that people may ask about the appliance is compiled. This list is then given to each person selling appliances and he or she is required to answer every question and return the answers. The answers are then examined by a committee and a mark given to each answer in the same manner that examination papers in schools and colleges are marked.

These marks indicate the degree of accuracy with which the questions are answered and when they are totaled they give the percentage of the person answering them. Some of the people answering them have been able to get a percentage of over 90, and it is obvious that these people are giving the correct information to the people to whom they talk, or at least have the ability and the information needed to do this.

The electric grill, the electric oven, the electric range and the ironer have all been taken up in questionnaires—or, if one prefers the term—examinations. Every appliance the company sells will be taken up in the same manner.

In so far as possible the work is handled by committees. This is done to make the tests fairer than would be possible if one individual made up the list of questions, decided upon the answers and did the marking.

Monthly meetings are held and these appliances and the questions are discussed at these meetings; that is, after the questions have been answered by the salespeople. At first it was decided or at least thought best to give each person his mark confidentially, but before a final decision was made the sales force itself was asked to vote on whether each person's mark should be given out in the meeting or given confidentially to the individual. It was voted unanimously to have the marks read out in meeting.

This little measure of diplomacy is important when using this system of checking information. Had Mr. Allcott taken it upon himself to read the marks in meeting, it is quite possible that the salespeople in all cases, especially those receiving the lowest marks, might not have taken to the idea with a great degree of enthusiasm. As it is, every one is satisfied, for the sales force itself has rendered the decision on this point.

It is made plain to every one that his or her standing with the company is determined by the marks received on these questionnaires as well as by the sales made. The results are already gratifying. Every one is taking a greater interest in gaining the information needed to answer every possible question that can be asked.

What the Salesperson Should Know About the Blank Ironer—Electrically and Gas Heated

Form of Examination Paper Used by the Narragansett Electric Lighting Company, Providence, R. I.

Q. What is the use of this ironer?
A. .....
Q. What is the length of the shoe?
A. .....
Q. What other makes of ironers have the same sized shoe and the same price?
A. .....
Q. How is the shoe controlled?
A. .....
Q. Why does it have the double control?
A. .....
Q. On what principle does the ironer operate?
A. .....
Q. What actually takes place during the ironing process?
A. .....
Q. What is the size of the motor?
A. .....
Q. What is the drive?
A. .....
Q. What is the energy consumption of the motor per hour when in use?
A. .....
Q. Why is the roll padded?
A. .....
Q. What is the gas consumption per hour of the gas shoe?
A. .....
Q. Why do we have the rod on the left-hand side of the ironer?
A. .....
Q. How do you control the operation of the roll?
A. .....
Q. What cannot be ironed on this ironer?
A. .....
Q. What is the current consumption of the electrically heated shoe?
A. .....
Q. How much current does the average ironing consume of the electric shoe?
A. .....
Q. What is used in padding the roll?
A. .....
Q. Where do you oil the ironer, and how often?
A. .....
Q. Do you know of any more makes of ironers? On what principles do they operate?
A. .....

Note: The above furnishes an analysis of your knowledge of electrically and gas-heated ironers. If you do not know the answers, pass in your questionnaires and state that you don't. You will not profit by asking for the information unless you have sufficient time in which to receive a full explanation of that with which you are not familiar. The questions must be answered immediately.

Blight of the Underwriters Now Falls on the Radio Field

Radio Receiving Sets, Each Involving About as Much Fire Hazard as a Bathtub, Now Made the Subject of Elaborate Rules, Which Through Widespread Propaganda Are Being Used to Spread Fear and Mistrust Among Radio Amateurs and Property Owners

Radio Equipment and Fire-Insurance Regulation

Radio fans should give heed to fire-insurance rules in connection with the hooking-up of radio equipment, otherwise the rates on their properties may be raised or the insurance refused entirely, warns the Bureau of Standards of the Department of Commerce, in calling attention to the fact that fire-insurance regulations governing the installation of radio apparatus are to be revised.

Released for use of morning papers Sunday, May 14, 1922.

ABOVE is a copy of the latest piece of fire-insurance fear propaganda. It was sent to newspapers throughout the country for reproduction and delivery to millions of readers on a Sunday morning of last month—obviously with the purpose of arousing fear and mistrust of the hundreds of thousands of amateur radio sets now in use, and so throwing even "wireless" installations into the clutches of the Underwriters and their inspectors, in the same way that the wiring business has suffered from Underwriters' control.

Radio Receiving Set Rivals White Enamel Bathtub as a Fire Hazard

An ordinary radio receiving set, as every reader of ELECTRICAL MERCHANDISING knows, involves about as much fire hazard as a white enamel bath tub.

Even the authors of the Underwriters' new rules freely admit that antennas installed wholly inside of buildings represent *no fire hazard whatever.*

Such fire hazard as accompanies a radio receiving set, they point out, lies *in the lightning hazard to the antenna* that extends outside of the building.

And how much lightning hazard is that? Isn't the lightning or fire hazard of an antenna extending outside a dwelling or other structure, only comparable to the lightning or fire hazard of any of the following familiar structures?—as much and no more?

Electric-light wires Metal roofs
Metal flag poles Metal cornices
Wire clothes lines Telephone wires
Metal gutters and down spouts

For years we have all been subjected to these familiar lightning hazards, without the underwriters formulating rules or sending out scare notices that the finding of a metal roof or a metal cornice on a house is sufficient cause to invalidate insurance!

For generations the underwriters have been utterly oblivious to the dangers of metal gutters and downspout. Probably if the said underwriters ever become aware that every gutter and downspout is itself an aerial, pulsating with every radio impulse that threads the ether, doubtless copper gutters and downspouts will also go under the ban. For indeed, every metal cornice, every tin-roof, every metal flagpole, and every fence-wire, is an aerial.

But the underwriters being familiar with these objects, and knowing that lightning strikes literally only about one house in a million, have very sensibly raised no lightning-hazard scare about these useful exposed metal structures on our houses and buildings.

When you are shut up in a hospital because a German shell took away your legs, or a breath of gas spoiled your lungs, or the crack and horror of the front lines put your nerves out of order, and you are lonely and discouraged and then someone who hasn't forgotten, stages a radio concert right by your bed, wouldn't it make you radiate?

And what would you think of the Underwriters who have made a lot of technical rules regarding antennas, which are frightening hospital authories and preventing the use of radio sets in hospital wards to while away weary hours?

"If It's Electrical—It Must Be Hazardous!"—That's Underwriter Philosophy

It is only when anything or any object is electrical or even *seems* to be electrical in character, that the official animosity of the underwriters' forces is aroused and the machinery of fear propaganda is set to work.

Take the rules for radio receiving sets reproduced herewith. As guides for the erection of amateurs' antennas these regulations are excellent and desirable. Mr. W. S. Boyd and his committee which formulated these rules are most competent engineers and have been most faithful in the discharge of their responsibilities. It was their understanding that the rules now promulgated would be tentative only, and would involve no insurance riders or policies.

But no sooner do these excellent rules appear, than their technical elaborativeness is immediately seized upon by the underwriters' bureaus and inspection department—which have recently been holding out grasping hands toward the growing radio field—and these rules are made to serve as clubs for the use of inspectors and inspection authorities who are without enough electrical brains or radio knowledge to perceive the ridiculousness and unfairness of their actions.

As the result of the recent Sun-

day paper publicity threatening radio owners with having the insurance rates on their property raised or their insurance cancelled altogether, fear and consternation have been thrown into the minds of hundreds of thousands of radio users, parents have become alarmed and have forbidden the use or purchase of sets, and landlords have refused to permit innocent and *electrically-inert* wires to be strung across their roofs. The great wave of interest and enthusiasm for radio has suddenly received a body-blow from that long-time deterrent of electrical progress—the underwriters' system.

The way this fear propaganda works to the misfortune of the lay public and to the injury of the electrical and radio business, is exemplified by the following letter which appeared in the *New York Tribune*, Saturday, April 29. It tells the story of a hospital patient who, as you read this, probably lies on his sick bed, deprived by the condition of his eyes, of whiling away the hours by reading, and deprived of the enjoyment and relaxation of listening to radio concerts by the fear propaganda of the underwriters.

RADIO FOR HOSPITALS

To the Editor of the "Tribune":

Sir: I have a relative at the Post-Graduate Hospital who is suffering from an eye affliction which prevents him from reading. He will be there six weeks. I wished to install a radio, but was refused permission, because the fire insurance companies would cancel policies if this were done. Radio entertainment would mean so much to hospital patients that it seems as if something should be done to obtain permission to provide it.

DR. SAMUEL SEMUELS.

From New York "Tribune," Saturday, April 29, 1922.

So far has the propaganda of fear been carried against radio and so absurd are the restrictions becoming against the amateur putting up a little piece of wire that involves no more electrical or lightning hazard than do metal gutters, downspouts, metal roofs, metal cornices, wire clothes lines and other familiar metal structures, that it is about time for the great army of radio enthusiasts to take a firm stand against the underwriters unreasonable requirements.

So far as cancellation of insurance on the premises is concerned, our radio friends should be informed that ELECTRICAL MERCHANDISING and other investigators have not been able to find any instances in which insurance has ever been canceled because of violations of the Electrical Code, (of which the new radio rules form a part).

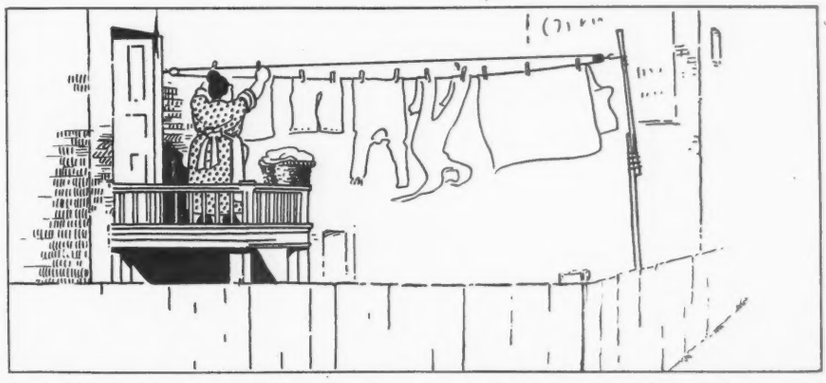
Half of Buildings Wired Contain Safe Violations of Code

If indeed the underwriters ever set out to enforce such regulations and to withhold or cancel insurance because of violations of the radio clauses, they would be confronted by the fact that today from half to three-quarters of the houses and buildings on this continent contain violations of the code as respects electrical wiring. And obviously any attempt to cancel insurance because of Code violations, either radio or wiring, would wipe out half to three-quarters of the fire insurance business, besides demoralizing the insurance business generally. Of course the insurance managers and the local agents, being sensible business men, will not permit the vagaries of their inspection bureaus to go this far and put themselves out of business.

"If I have an antenna on my house, and my house burns down from any cause, will the insurance companies use as a pretext for refusing to pay my insurance the fact that my antenna is not put up in accordance with their rules?" This is a question

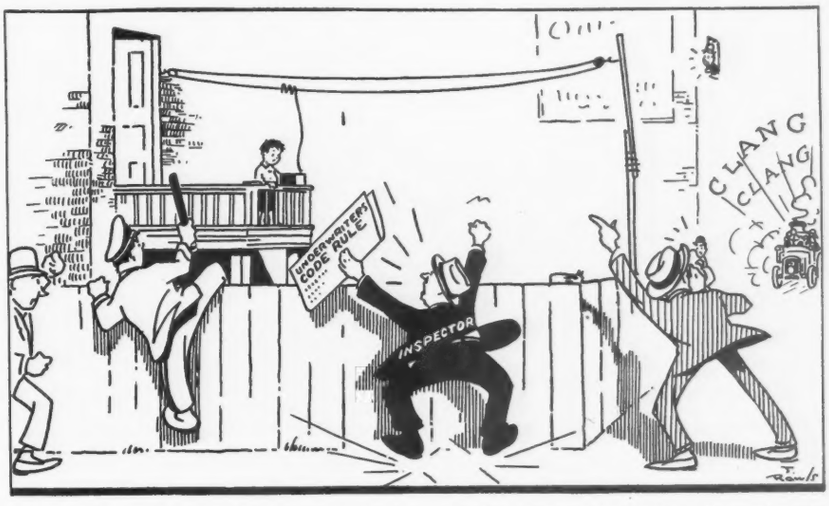
When Is a Harmless Wire or Metal Object a Terrible Fire Hazard?

Answer: When the Underwriters Think It's Electrical!



Mrs. O'Flaherty's wire clothesline has never heretofore been branded as a horrible fire hazard by anybody—not even by the underwriters.

Nor have the revered underwriters in their wisdom ever broadcasted fear propaganda warning the public against metal gutters, downspouts, wire fences, tin roofs, metal flagpoles, metal cornices, etc., with the threat of having insurance policies cancelled or rates raised on premises so equipped.



But if little Willy O'Flaherty connects up his harmless $4.50 crystal receiving set (containing not even a dry battery) to his mother's non-hazardous wire clothesline, there is at once created a terrible fire hazard —in the minds of the underwriters, their inspectors, and now also, alas, the public who are being frightened by propaganda like the sample reproduced on the opposite pages.

which has disturbed the sleep of many a radio enthusiast and property owner since the start of the underwriters' campaign against radio. The answer of course is found in the insurance companies' sensible practice of paying their losses without any question of Code violations, in spite of the fact that from half to three quarters of the houses insured contain perfectly safe violations of the National Electrical Code. If the insurance companies ever raised the point of Code violations as a reason for resisting payment of their losses the insurance protection on no man's house would be safe and the insurance business would be demoralized!

Proposed Radio Installation Rules, to Supersede Rule 86 of the National Electrical Code

THESE suggested rules, prepared by a technical subcommittee of the Electrical Committee of the National Fire Protection Association, are published by authorization of the Electrical Committee, for tentative use and criticism. They are intended to replace Rule 86 of the National Electrical Code (1920), when the next edition is printed in 1923, but until then they are not final and are subject to change. Suggestions for changes and improvements in these proposed rules should be sent not later than September 1, 1922, to the chairman of the Standing Committee on Signal Systems, Wireless and Lightning, Wm. S. Boyd, 175 W. Jackson Boulevard, Chicago.

Because the art of radio is developing so rapidly that methods and equipment of today may be obsolete tomorrow it is felt undesirable in these rules to go into any great detail or into construction matters; it is intended merely to give minimum precautions for reasonable safety.

It is the judgment of the Committee that ordinary receiving equipments can be installed without introducing serious hazards, there being only two that need be given serious consideration: first, the avoidance of possible contact with light and power wires, especially trolley wires and feeders, together with those carrying a current of over 600 volts; second, lightning, which is taken care of by a lightning arrester.

Receiving antennas installed inside of buildings are regarded as without serious hazard, and are not covered by these rules, except that they should be run with the same care as is exercised in installing other signaling wires and apparatus.

IN setting up Radio equipment all wiring pertaining thereto must conform to the general requirements of the National Electrical Code for the class of work installed and the following additional specifications.

Antenna

(a) Antennas outside of buildings shall not cross over or under electric light or power wires of any circuit of more than six hundred (600) volts or railway trolley or feeder wires, nor shall they be so located that a failure of either antenna or of the above mentioned electric light or power wires can result in a contact between the antenna and such electric light or power wires.

Antennas shall be constructed and installed in a strong and durable manner and shall be so located as to prevent accidental contact with light and power wires by sagging or swinging.

Splices and joints in the antenna span, unless made with approved clamps or splicing devices, shall be soldered.

Antennas installed inside of buildings are not covered by the above specifications.

Outdoor antennas should be of rugged construction, held securely in place and kept well away from electric light and power wires. It is advisable for the amateur not to make any connections to poles carrying light or power wires. Those unfamiliar with electric wiring will do well to have antennas and other apparatus installed by competent electricians.

The size of the antenna will depend on the span; for the ordinary receiving antenna about 100 ft. long, No. 14 gage soft drawn copper wire may be used, or other wire of equivalent strength. Where the span is long; or where the antenna crosses other wires, it should be larger. The requirement for soldering or using approved splicing devices is made to minimize the possibility of antennas falling on other wires.

Note:—These rules, given above, are for receiving stations only, and do not apply to radio equipment installed on shipboard.

Lead-In Wires

(b) Lead-in wires shall be of copper, approved copper-clad steel or other approved metal which will not corrode excessively and in no case shall they be smaller than No. 14 B. & S. gage except that approved copper-clad steel not less than No. 17 B. & S. gage may be used.

Lead-in wires on the outside of buildings shall not come nearer than four (4) inches to electric light and power wires unless separated therefrom by a continuous and firmly fixed non-conductor that will maintain permanent separation. The non-conductor shall be in addition to any insulation on the wire.

Lead-in wires shall enter building through a non-combustible, non-absorptive insulating bushing.

Although desirable from a signaling viewpoint to prevent partial grounding in wet weather, these rules do not require the insulating of lead-in wires except where they pass through the building wall, where a bushing is specified. This is to protect against possible contact with wires, pipes, or other grounded metal which may be concealed in walls.

Protective Device

(c) Each lead-in wire shall be provided with an approved protective device properly connected and located (inside or outside the building) as near as practicable to the point where the wire enters the building. The protector shall not be placed in the immediate vicinity of easily ignitable stuff, or where exposed to inflammable gases or dust or flyings of combustible materials.

The protective device shall be an approved lightning arrester which will operate at a potential of five hundred (500) volts or less.

The use of an antenna grounding switch is desirable, but does not obviate the necessity for the approved protective device required in this section. The antenna grounding switch if installed shall, in its closed position, form a shunt around the protective device.

The protective device should be an approved lightning arrester; the use of cheap home-made devices should be discouraged. Fuses are not required, but if installed should be between the lead-in and the lightning arrester.

Protective Ground Wire

(d) The ground wire may be bare or insulated and shall be of copper or approved copper-clad steel. If of copper the ground wire shall be not smaller than No. 14 B. & S. gage and if of approved copper-clad steel it shall be not smaller than No. 17 B. & S. gage. The ground wire shall be run in as straight a line as possible to a good permanent ground. Preference shall be given to water piping. Gas piping shall not be used for grounding protective devices. Other permissible grounds are grounded steel frames of buildings or other grounded metallic work in the building and artificial grounds such as driven pipes, plates, cones, etc.

The ground wire shall be protected against mechanical injury. An approved ground clamp shall be used wherever the ground wire is connected to pipes or piping.

The proper connection of the antenna to the ground minimizes the lightning hazard. A satisfactory ground and properly run ground wire are of primary importance.

Wires Inside Buildings

(e) Wires inside buildings shall be securely fastened in a workmanlike manner and shall not come nearer than two (2) inches to any electric light or power wire unless separated therefrom by some continuous and firmly fixed non-conductor making a permanent separation. This non-conductor shall be

in addition to any regular insulation on the wire. Porcelain tubing or approved flexible tubing may be used for encasing wires to comply with this rule.

Receiving Equipment Ground Wire

(f) The ground conductor may be bare or insulated and shall be of copper, approved copper-clad steel or other approved metal which will not corrode excessively under existing conditions and in no case shall the ground wire be less than No. 14 B. & S. gage except that approved copper-clad steel not less than No. 17 B. & S. gage may be used.

The ground wire may be run inside or outside of building. When receiving equipment ground wire is run in full compliance with rules for Protective Ground Wire, in Section (d), it may be used as the ground conductor for the protective device.

Some Royal Rewards in Store for "Go-Getter" Salesmen

Commenting on the series of photographs, "Crystallizing Good Times in Your Town—a Go-Getter Salesman Puts in a More and Better Business Morning"—which appeared in ELECTRICAL MERCHANDISING *Pictorial* for last month, May, the general manager of the Electrical Distributing Company of Massachusetts, 142 Berkley Street, Boston, Tom J. Smith, Jr. writes:

"Your Mr. Mateer is to be congratulated upon his impersonation of the 'go-getter salesman,' in the May issue of your splendid paper.

"Based upon current commissions paid in New England, he sold in a single morning nearly five hundred dollars worth of merchandise upon which, with a minimum commission of ten percent, he would have earned fifty dollars. Provided he is only fifty percent as efficient in the afternoon, he should make an additional $25, or $75 for the day,—a mere $22,500 in a year of three hundred working days, provided he does not keep still and does not loiter more than 15 minutes between calls."

ELECTRICAL MERCHANDISING has published page after page of statistics showing the number of houses waiting to be electrically equipped, and we have pictured time and again in cold figures the tremendous potential market in store for the salesman who will go after it. The situation of a wholly unsaturated field exists in every community, east or west, and the go-getter salesman who sees the opportunity and goes out and makes the sales, has indeed earnings in big figures awaiting him.

Undaunted by threatening skies and frequent down-pours, members and friends of the National Electrical Credit Association visited and inspected Detroit's first "home electric," during the Association's annual convention, May 18-19. Scenes like the one shown can now be found in many places in the United States and Canada.

Electrical Credit Men at Detroit

Twenty-third Annual Meeting of the National Electrical Credit Association Plans a Study of Distribution and Aims to Establish Better Unity of Purpose Between Sales and Credit Departments

WHAT may be described as an intensifying interest in the problems of distribution within the electrical industry and as a growing purpose to lend definite and practical aid in their solution, characterized the twenty-third annual convention of the National Electrical Credit Association, at Detroit, May 18 and 19. Going hand in hand with this interest and purpose, there was evident a desire to establish a larger and better unity of effort between the sales and credit departments within each of the companies represented by the membership of the Association. As at the convention at Richmond a year ago, the slogan, "Creative Credit Management," was heard frequently in speeches and in discussions. Many practical suggestions, methods and plans for achieving these ends were set forth and discussed helpfully. Such, in brief, sums up the spirit, inspiration, purpose, and the "take-home message" of the convention.

This forward-looking purpose and breadth of vision across the industry as a whole, as well as a practical application to the daily work of the credit man, marked all of the addresses and discussions throughout the two-days' program.

Addresses were as follows: "Commercialize the Credit Department," by E. R. Ailes, treasurer, the Detroit Steel Products Company; "Darkest America," a survey of national and electrical problems in distribution, by Stanley A. Dennis; "Creative Credit Management," by M. C. Barrell, Western Electric Company, Boston; "How Business Looks Today," by Rev. M. S. Rice, D. D., Detroit; "Credit Problems and Their Solutions," by W. R. Conklin, American Copper Products Company, Elizabeth, N. J.; "How the Jobber's Credit Man Can Help the Electragist Solve His Financial Problems," by Kenneth McIntyre, Society for Electrical Development, New York; "Comparative Financial Statements and Their Value As a Basis for Credit," by Floyd A. Ferguson, Westinghouse Electric and Manufacturing Company, Chicago, and "Present Financial Problems," by William J. Gray, vice-president, First National Bank, Detroit.

Helpful discussions were opened up by V. G. Fullman, Steel City Electric Company, Pittsburgh; J. D. Meek, Indianapolis Electric Supply Company, Indianapolis; J. T. Dunnick, the Erner & Hopkins Co., Columbus, O.; and C. A. TerBush, General Electric Company, Philadelphia. Officers were elected for 1922-1923

at a meeting of the Board of Managers of the Association. Clarence Kaeber, credit manager of the Electric Storage Battery Company, Philadelphia, was elected president of the Association for the ensuing year. S. B. Anderson, of the Pacific States Electric Company, San Francisco, was elected vice president. Frederic P. Vose, was re-elected secretary-treasurer and Walter S. Vose, was re-elected assistant secretary-treasurer.

Helping the Contractor and Dealer to Be a Better Merchant

Certain specific and helpful suggestions were made by Kenneth McIntyre in telling how the jobber's credit man can help the electragist to solve his financial problems. Because of the unintelligent competition which seems somewhat prevalent just at present among electrical retailers the electrical credit man can assist established contractors and dealers by exercising extreme caution in granting credit to the newcomers in the electrical field, suggested Mr. McIntyre.

In many respects the trade today is suffering because of the troublesome practice of granting loose credits. The credit man can help the electrical retailer by keeping an eye on the questionable retailer and the curbstone contractor who frequently accepts work at or less than cost. This kind of selling, of course, also leads to financial ruin in the end and is a source of danger to the established contractor-dealer. The credit man can further help by influencing the selling policy of his own house so that trade prices are not given indiscriminately. These prices may even be based on requirements as to experience, ability and moral worth of the dealer or contractor.

Having won the confidence of his contractor-dealer customers the credit man can then use his influence in many directions. He can help the contractor-dealer to overcome his lack of capital by bringing him to a better understanding of the need for a larger turnover, proper accounting including a knowledge of costs, proper billing, proper collections, holding down bad debts, a firmer policy with slow pay customers, a more economical management of overhead, a better control of personal expenses, building up reserves of capital, establishing a line of credit at the bank and the discounting of his bills.

This does not mean that the credit man should make up for lack of capital by extending the limit of credit. At no time should he lend the contractor-dealer more than the contractor-dealer can meet under the agreed terms of payment.

The credit man must be firm, diplomatic, patient, sincere always. His interest in the success of his customer's business must be personal and "from the heart out." He must realize, of course, that his own success depends upon the success of his customers.

As to lack of business, this is more a sales than a credit matter, but the credit man can persistently urge that the contractor-dealer should have a consistant and continuous selling effort under way instead of the usual "hit or miss" effort. The credit man should interest himself in the price the contractor-dealer sets for his work or for his goods. Many contractor-dealers are afraid to stand up for their profit. They are afraid to charge a price which nets them a fair profit and too frequently are content with a totally insufficient profit for the effort or value expended. A credit man can do good a work in building up business for the contractor-dealer by helping his customer to maintain a sound profit policy.

Evil of Buying for Price As Against Profit, Emphasized

When it comes to buying, the credit man should continually caution the dealer or contractor against overbuying and against buying for price as against profit or turnover. There is no reason why the credit man and the salesman should conflict on this point, for the interests of both demand that the dealer or contractor be not overstocked. To work such a plan successfully the credit man must sell the idea to the salesmen of his house. He must win their co-operation, not their antagonism. He must prove that this kind of sound buying policy is conducive to better busines for all concerned. The credit man can very well handle complaints and leave the salesman to handle the orders. This will often help to eliminate excuses which are frequently used for delaying payment. Loyalty to his house and also to the customer are not incompatible. They live very well together and can work for the good of the most concerned.

In discussing the problems of distribution as they affect the country as a whole and also as they affect the electrical industry, Mr. Dennis urged that certain definite things must be done if we are to save the nation and especially the electrical industry from more complicated problems of distribution than those which we now face.

He declared, also, that we must, as a nation and as an industry, obtain an individual and a national recognition of the fact that there *is* a big and vital problem facing us in mal-adjusted distribution. He emphasized the need for initiating and establishing and maintaining organized effort to study this problem and its relation to problems of production and consumption. Given a competent organization to study this question, facts should be obtained, and on the basis of these facts efforts must be made to find remedies for the troubles in distribution, both within the electrical industry and throughout the country.

Planning to Attack Specific Problems in Distribution

In closing, Mr. Dennis urged that the electrical credit men undertake to make a census of the retail electrical outlets in this country. As a result of this suggestion a resolution was passed authorizing the appointment of a committee to take up the entire subject of distribution within the electrical industry and to outline certain specific ways in which the electrical credit men can do their part in solving these problems of distribution. This committee will be appointed by Mr. Kaeber, the new president of the Association. The work will be taken up by each of the divisions making up the National Association and any action will be approved later by the Board of Managers.

Despite a heavy rain on the second day of the convention, the "golf fans" who were present held their annual tournament. The first prize, a cup presented a year ago by Mr. W. L. Goodwin, was won by Mr. Frederic P. Vose, Chicago; the second prize, the Board of Managers' cup, was won by H. E. Wilkins, Chicago; and the third prize, offered by the Central Division Association went to Benjamin P. George, Chicago. The fourth prize, a dozen "consolation" golf balls was won by Robert Edwards, Jr., retiring president of the National Association.

Electrical Merchandising *Pictorial*

A Monthly Picture Section of Sales Ideas

Gifts that Make Happiness —Electrical Gifts!

Many a June Bride-Elect Hopes to Become a Wife-Electrical This Year!

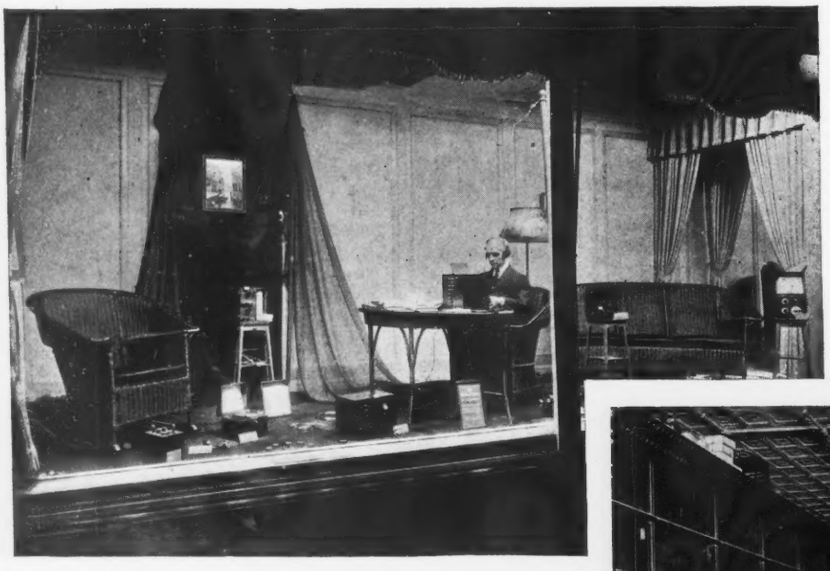
AND while we are on the subject, let's ask ourselves —If electrical gifts mean such happiness to the June bride, why not to everyone else? Why not, indeed? June is only one month of the year, and gift-giving is an all-year-round pastime—or duty. Why not make that birthday gift electrical?—that anniversary present, that holiday remembrance? Above all, why not, as electrical men ourselves, give electrical gifts all the time, instead of cut glass bowls and china clocks? And why not, at our testimonial electrical banquets, give the testimonee a gift electrical, in place of that diamond-studded pin or gold-crusted fountain pen? Electrical gifts—by, for, and at the incentive of, electrical men!

THE little June bride, of course, would hardly merit the attention she deserves from electrical dealers if her importance were measured only by the electrical gifts she receives. But June is the traditional month of weddings, and hence offers the electrical man the choicest opportunity of the year, next to Christmas, to advertise the beauty and appropriateness of electrical things *as gifts*. And that thought, once planted, shows its results in electrical gift-buying all-the-year-round.

Some Suggestions for Merchandising Radio

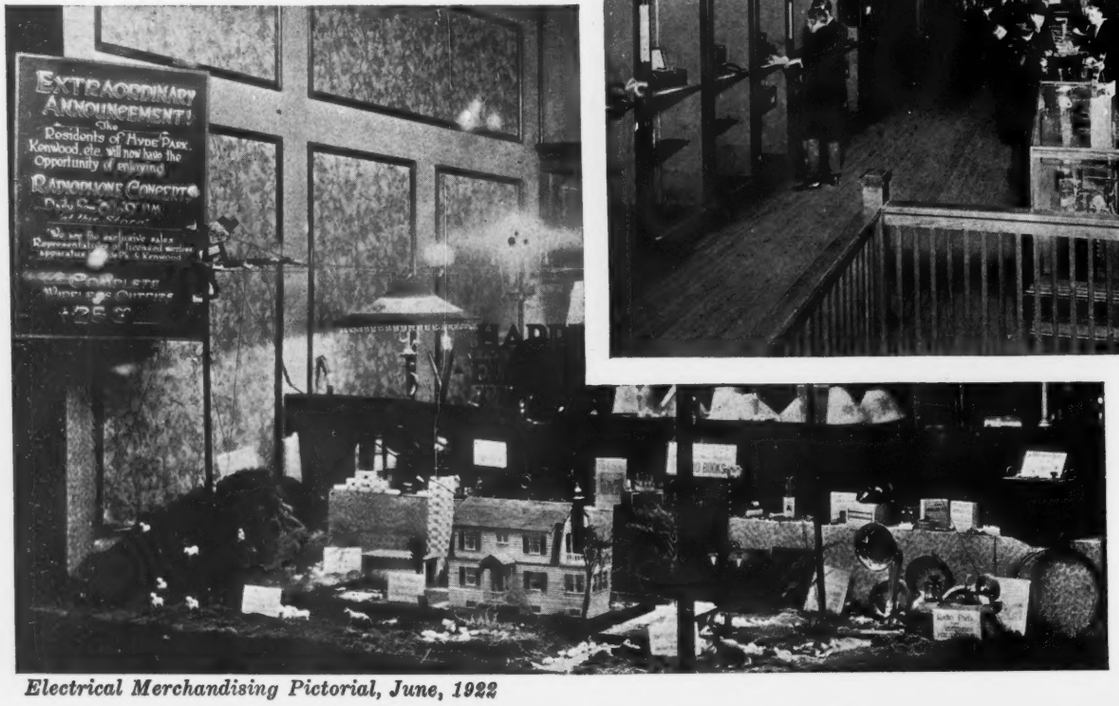
Only Sound Policies Will Hold Business When the Radio "Craze" Is Over

Even the electrical dealer can "take the mountain to Mohamet," if it is necessary or expedient. This crowd, at the right, is listening to a radio concert captured from the ether by the antenna stretched along the top of the radio demonstration and sales car owned and operated by a New York radio dealer. His conception of sound merchandising policies prompted him to take radio "out on the street where the people are." Sales? Yes!



An expert merchandiser can make his store windows sell just what he wishes to sell. At least department store merchandising seems to prove that that can be done. So when R. H. Macy & Company, New York, wished to sell radio sets rather than parts, they rigged up a window displaying complete sets "surrounded by the home atmosphere," as the manager expressed it. Radio parts have only a small emphasis in the window. And sets were sold.

Make it easy for the customer to buy, seems to have been the slogan of the radio dealer who placed his radio sets in separate display and demonstration booths along one side of his store.


EXTRAORDINARY ANNOUNCEMENT!
Residents of Hyde Park, Kenwood, etc. will now have the Opportunity of enjoying
RADIOLYNE CONCERTS

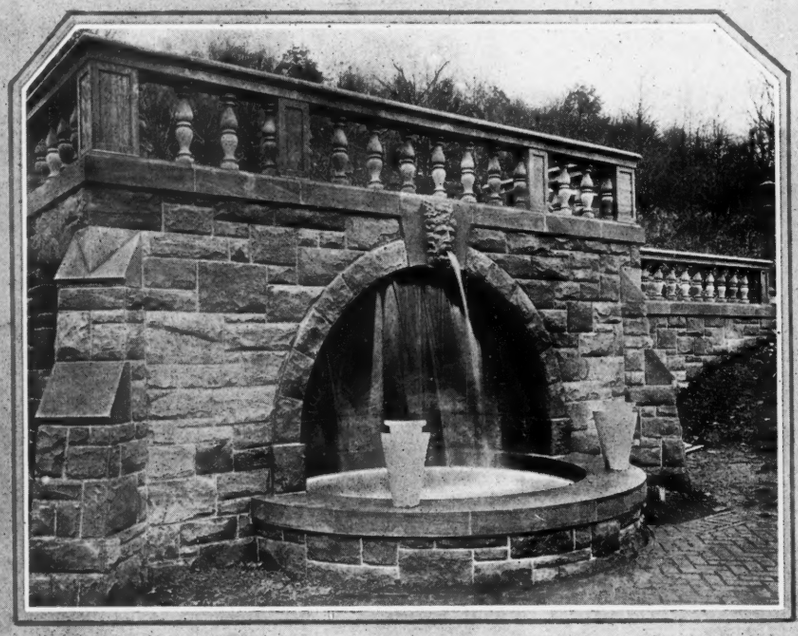
If a dealer wants to sell radio, let him put radio into his window, making the display as unique as possible. Read the sign at the left, and note the little imp perched on the antenna and tying up the display and sign.

A single demonstration set, at the rear of the store, completely surrounded by clerks and a "radio mob," is not especially good merchandising method. A better way for demonstrating radio sets is shown at the right. Note the shelving and its uncluttered appearance. Too many new radio stores are disorderly. Order is the store's first law.

When it comes to putting up the antenna, a radio dealer can build good will and more business by sending out a competent man to help "put up the wires," especially when the customer wants this kind of service. Let the salesman pull off his coat and be "one of the boys."

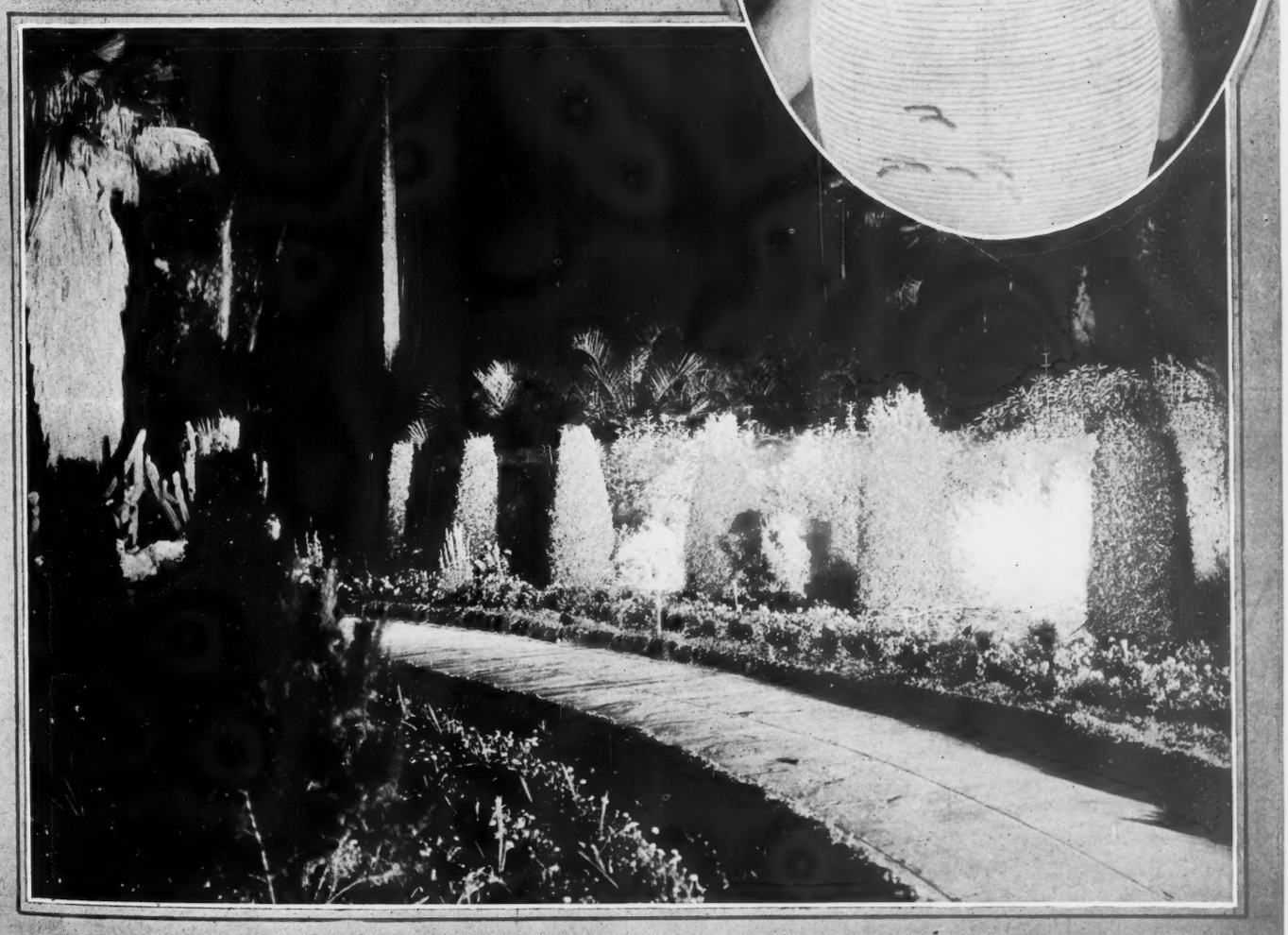
Often it is good salesmanship to get customers acquainted with each other. Let the salesman get the "nut" to shake hands with a fellow "nut" and a "fan" to grip hands with a fellow "fan." It tightens the human bond all around—and helps sales.

The Summer Garden and the Witchery of Light



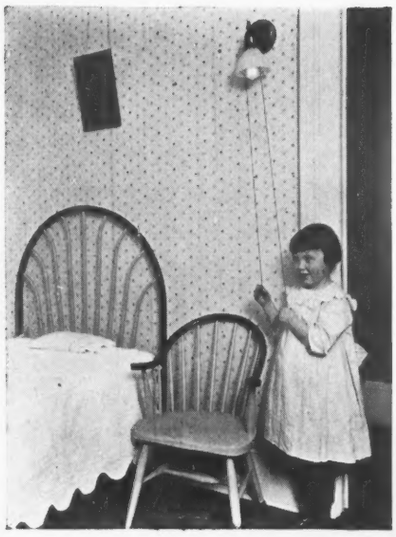
Big gardens and little gardens offer equally fascinating opportunities for the beautifying touches of light. A walk of a few blocks should suggest a dozen ways to make neighboring gardens and the whole community, for that matter, a fairyland by night. A rose fence here, a poplar walk there, a vine-covered wall, an arbor, a trellis, a bit of garden statuary, a fountain (such as that shown above, lighted by concealed lamps behind the urns)—all can be made feasts for the eye at night as well as by day, with the magic of a lamp.

Decorative lighting of gardens, in all probability, will be the next step forward of garden lovers. Flowers and shrubbery and trees take, with a surpassing graciousness, to the magical touches of artificial light. What they softly accept in witching colors, they give back a thousandfold in delicate tracery of blossom and branch, in mystically beautiful shapes and forms. He who successfully lights a garden will know all the thrill, the joy, of the creative artist.



Five Useful Electrical Ideas from an Electrical Man's Home

How a little thought and study have introduced some common-sense conveniences into the wiring of a Bronxville, N. Y., home.



(Above)

Long cords on the turn-down light in the little girl's bedroom provide a double convenience — a dim light when needed and one that little hands can reach.

(At Right)

A convenience outlet at the level of the dressing table—handy to plug into for violet ray, curling iron, etc. Note also how the pull chain for the overhead light is within easy reach.

(Below)

Outlets for the portable lamps in the living room (which are that room's sole source of light) are controlled by wall switches near the entrance. This avoids fumbling in the dark for the lamps themselves.

An outlet at the head of the stairs for plugging in the vacuum sweeper when cleaning the hall and stair carpets, is another convenience often overlooked. The 2-way switch above controls a light on the first floor.

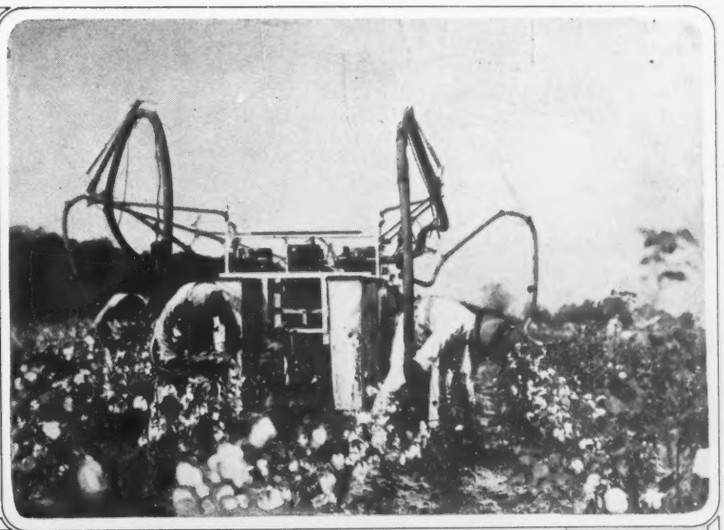
(Below, Center Picture)

A double outlet in the bedroom ("pillow high") supplied the bedside lamp and leaves one pair of contacts free for connecting the heating pad or fan, or other appliances in case of sickness.

These pictures show the home of F. M. Cockrell, promotion manager of the McGraw-Hill Company, Inc., New York, and previously on the staff of ELECTRICAL MERCHANDISING in Chicago and Cleveland.

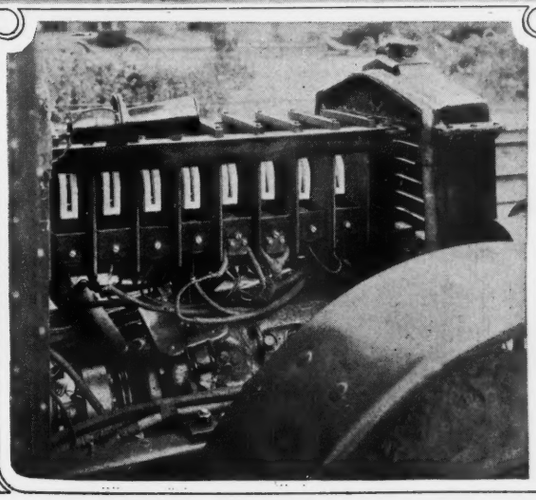
Electricity Takes on Some New Jobs

It takes just three minutes for this telephone sandglass to shift its grains—and notify the speaker that her time is up.



They haven't christened this electrical machine the "Abe Lincoln," but it could be done appropriately. It emancipates the colored cotton picker, doing the job much faster and delivering cotton to the bale in better shape than with the hand method.

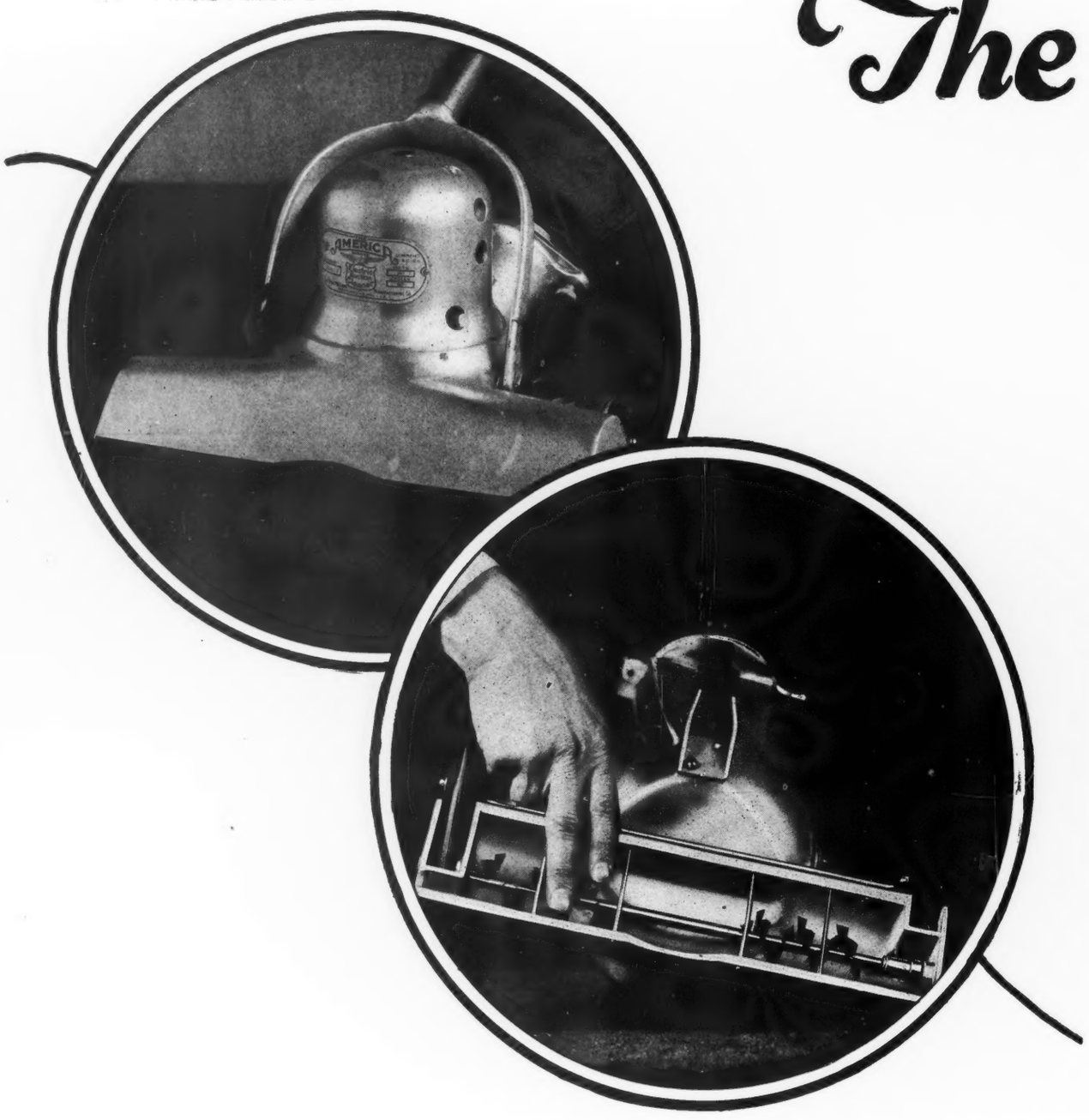
(Above)
Synchronizing sound with light, the new electrical invention of Mr. Grindell-Mathews, shown above, makes it possible to record and reproduce speech and song with motion photography. "Moving pictures that talk"—you know!



(At left)
A glance under the engine-less, spark-plug-less hood of the new electric trolley bus shows controller and motor wired for action.

Constant-speed, rotary electric tooth-brushing is now available, to replace the old hand-operated, reciprocating dental cleansers in the home.

The



AMERICA
Over, Under

Electrical Merchandising Pictorial, June, 1922

America's Double Size Mouth

THE America's Double Size Mouth produces twice the volume of air and suction found in other cleaners. This double volume of air cleans a rug in half the time usually taken. With such an air force, rugs are more thoroughly cleaned. The America pulls out the embedded grit—the grit that shortens the life of a rug. America is the Cleaner that picks up thread, strings and lint, straight through into the dustbag. It is not necessary to pick refuse of this kind off the floor by hand, nor off the brush, after cleaning work is completed. This is a selling point that will close sales for you.

Women want a Cleaner that not only cleans efficiently, but quickly. The America with its Double Size Mouth, Two-way Brush, patented Front Air Arch, and Baseboard Dust-tunnels, meets their requirements with complete satisfaction. These exclusive America features offer a striking sales appeal that prospective buyers quickly appreciate. This appreciation can be speedily turned into profitable sales.

America's Financing Plan permits you to offer the "Easy Payment Plan" to every woman of good credit-standing in your community. You receive the full benefits of a cash transaction.

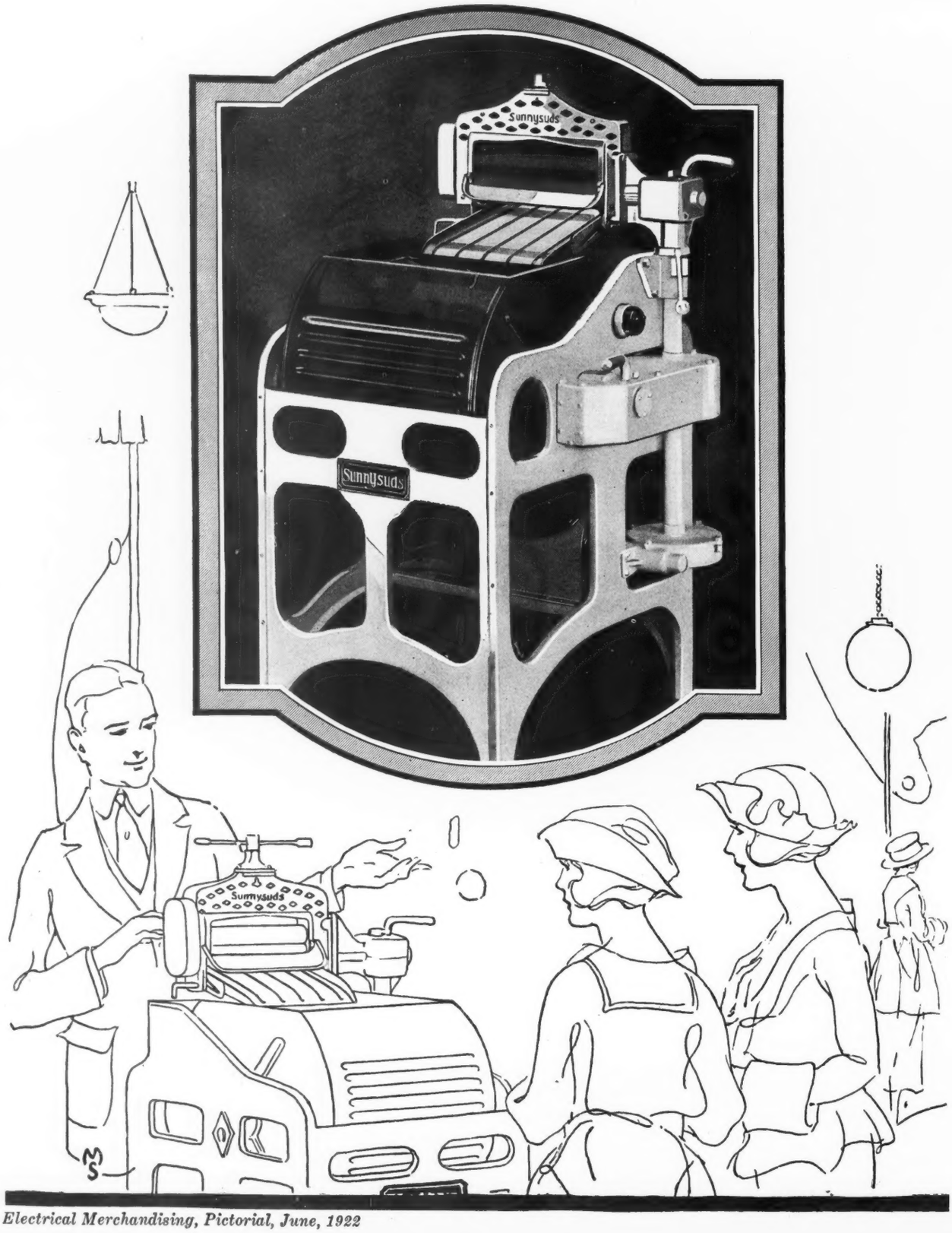
Write for full particulars. Ask us about America's 100% Profit. It's a fact.

THE WISE-McCLUNG MANUFACTURING CO.
500 Eighth Street
New Philadelphia, Ohio

CLEANER and Thru

Electrical Merchandising Pictorial, June, 1922

First to Sell at $100 and



Electrical Merchandising, Pictorial, June, 1922

Still First in Popularity

Hardly a year ago we announced that we would build a standard all-metal electric washer to retail at $100. Hardly had the magazines carrying the first advertisement been published when we were inundated with communications from hundreds of dealers who sensed the amazing possibilities in an electric washer that would sell for $100 and prove satisfactory.

While our new factory was being equipped for quantity production, a skeleton of our dealer organization slowly came into existence. Dealers were carefully selected and allotted sales territory on a sane basis.

When the first shipments of this remarkable washer were released, various dealers frankly asserted that their expectations had been exceeded: the $100 Sunnysuds was really beautiful; its cleansing action combined both gentleness and thoroughness; in the design no detail was lacking; and its superb construction foretold exceptional staunchness and freedom from trouble.

Sales began immediately and everywhere soon leaped to amazing figures. The reputation of the Sunnysuds grew by word of mouth—spread by owners who generally pronounced it unequalled at any price. This popularity in turn led additional dealers to apply for territory.

Today the country is dotted with over 1,000 Sunnysuds dealers—by the time these words are printed more than 16,000 Sunnysuds will have been built and sold—and we, one of the youngest companies, rank among the leading builders of electric washers!

Our unhurried expansion is still proceeding. In many communities still we can accommodate aggressive able dealers on a basis that will insure most acceptable profits. The moderately priced electric washer is definitely established and satisfying the largest and richest market. And if you want to sell the original $100 washer and the most popular one—write us today for complete information.

SUNNY LINE APPLIANCES, Inc., *Detroit, Michigan*
Canadian Factory: Kitchener, Ontario (27)

They Said: "Bust Right in Anytime!"

—And the Engineer Took Them Seriously

Interior of Thompson Electric Shop after the Freight Car was removed

IN TAMPA, FLORIDA, the Thompson Electric Company has long made it clear that when any one needs anything electrical, the thing to do is to rush right into their electric shop on Lafayette Street. Apparently this idea got across in fine shape to a freight-engine driver who backed the rear car of his train over a bumper, across the street, up the opposite curb, and parked it in the center of the electric company's stock room.

Like the Thompson Electric Company, we sell everything electrical and our greatest pleasure is welcoming patrons in our store. But in the interests of traffic and order, please park your freight cars outside!

Electrical Merchandising Pictorial, June, 1922

Electrical Merchandising Pictorial, June, 1922

The Status of Radio and Broadcasting

Present Conditions of Radio Art and Recommended Legislation on Radio Topics, as Brought Out in Report of the Recent Hoover Conference on Radio Telephony

THE Conference was called by Secretary Hoover to consider general questions concerning the regulation of radio communication. The following were invited to serve as members of the Conference, the representatives of Government departments being selected by their several departments:

Dr. S. W. Stratton, (Director of Bureau of Standards), chairman.

Edwin H. Armstrong, Columbia University, New York.

Capt. Samuel W. Bryant, Navy Department.

D. B. Carson, Commissioner of Navigation, Department of Commerce.

J. C. Edgerton, Supt., Radio Service, Post Office Department.

Dr. Alfred N. Goldsmith, Secretary, Institute of Radio Engineers, New York, N. Y.

Prof. L. A. Hazeltine, Stevens Institute of Technology, Hoboken, N. J.

R. B. Howell, Metropolitan Utilities District, Omaha, Neb.

Prof. C. M. Jansky, Jr., University of Minnesota.

Hiram Percy Maxim, President, American Radio Relay League, Hartford, Conn.

Major-General George O. Squier, War Department.

Representative Wallace H. White, Jr., of Maine.

W. A. Wheeler, Bureau of Markets and Crop Estimates, Department of Agriculture.

The Conference was in session from February 27 to March 2, at the end of which time a tentative report was prepared. This report was sent to all persons who requested it, and to representatives of various interests which in the judgment of the Department of Commerce were interested. A large number of suggestions and comments were received. The Conference held subsequent sessions on April 17, 18, and 19. All comments were considered, the general effect of the comments being to approve the substance of the preliminary report with a very few exceptions. The report as finally amended and adopted is given herewith.

In addition to preparing a report on technical matters, the Conference made recommendations as to essential points required in legislation to give the Secretary of Commerce authority necessary to accomplish the ends recommended, through the power to make regulations.

Resolved, that the Conference on Radio Telephony recommend that the radio laws be amended so as to give the Secretary of Commerce adequate legal authority for the effective control of:

(1) the *establishment* of all radio transmitting stations except amateur, experimental and Government stations. (2) the *operation* of non-Governmental radio transmitting stations.*

Resolved, that it is the sense of the Conference that radio communication is a public utility and as such should be regulated and controlled by the Federal Government in the public interest.

Resolved, that the types of radio apparatus most effective in reducing interference should be made freely available to the public without restriction.

A. It is recommended that waves for radio telephony be assigned in bands, according to the class of service, as given in the table above.

Throughout this report, both wave lengths and wave frequency are given. Wave length, in meters, is 300,000,000 divided by wave frequency in kilocycles per second.

Wave bands marked *exclusive* can be used for no other type of service; those marked *non-exclusive* are available for other types of radio communication, subject to regulation.

Allocation of Wave Bands

		Wave Length Meters	Wave Frequency Kilocycles Per Second
(1)	Transoceanic radio telephone experiments, non-exclusive. (See note 3)	6,000 5,000	50. 60.
(2)	Fixed service radio telephony, non-exclusive. (See note 4)	3,300 2,850 2,650	90.9 105.2 113.2
(3)	Mobile service radio telephony, non-exclusive	2,500 2,050	120. 146.
(4)	Government broadcasting, non-exclusive. (See note 1)	1,850	162.
(5)	Fixed station radio telephony, non-exclusive. (See note 5)	1,650 1,550	181.8 193.5
(6)	Aircraft radio telephony and telegraphy, exclusive	1,550 1,500	193.5 200.
(7)	Government and public broadcasting, non-exclusive	1,500 1,050	200. 285.7
(8)	"Radio beacons," exclusive. (See note 6)	1,050 950	285.7 316.
(9)	Aircraft radio telephony and telegraphy, exclusive	950 850	166 353
(10)	"Radio compass service," exclusive. (See note 7)	850 750	353 300
(11)	Government and public broadcasting, 200 miles or more from the seacoast, exclusive	750 700	400 428
(12)	Government and public broadcasting, 400 miles or more from the seacoast, exclusive	700 650	428 462
(13)	Marine radio telephony, non-exclusive. (See note 8)	750 650	400 462
(14)	Aircraft radio telephony and telegraphy, exclusive (See note 8)	525 500	472 500
(15)	Government and public broadcasting, exclusive	495 485	606 618
(16)	Private and toll broadcasting. (See note 9)	485 285	618 1062
(17)	Restricted special amateur radio telegraphy, non-exclusive. (See note 10)	310	968
(18)	City and state public safety broadcasting, exclusive (See note 11)	285 275	1052 1091
(19)	Technical and training schools (shared with amateur) (See note 12)	275 200	1091 1500
(20)	Amateur telegraphy and telephony (exclusive, 150 to 200 meters). (Shared with technical and training schools, 200 to 275 meters). (See note 13)	275 150	1091 2000
(21)	Private and toll broadcasting, exclusive	150 100	2000 3000
(22)	Reserved	below 100	above 3000

Definitions and Terms

Note 1. The terms used in the above schedule are defined as follows: "BROADCASTING" signifies transmission intended for an unlimited number of receiving stations without charge at the receiving end. It includes:

(1) *Government broadcasting* signi-

*It was the desire of the Conference that the present authority of the Secretary of Commerce over the operation of radio transmitting stations be extended and that the Secretary of Commerce be granted authority to control the erection or establishment of certain classes of radio stations.

The Picture Opposite

Use the picture on the opposite page to call attention to your facilities for service. Customers who come into your store, or prospects who pass your show-windows, will be interested in seeing this unusual photograph, and its message.

fying broadcasting by departments of the Federal Government:

(2) *Public broadcasting* signifying broadcasting by public institutions, including state governments, political subdivisions thereof, and universities and such others as may be licensed for the purpose of disseminating informational and educational service:

(3) *Private broadcasting* signifying broadcasting without charge, by the owner of a station, as a communication company, a store, a newspaper, or such other private or public organization or person as may be licensed for the purpose of disseminating news, entertainment and other service; and

(4) *Toll broadcasting* signifying broadcasting where a charge is made for the use of the transmitting station.

Note 2. A station carrying on two or more of the broadcasting services specified in classes 2, 3, and 4, must be licensed for each class of service.

Note 3. When transoceanic radio telephone experiments are to be conducted the Department of Commerce should endeavor to arrange with other countries for the use of the wave band 5,000 to 6,000 meters assigned for this purpose.

Note 4. The wave band from 2,850 to 3,300 meters may be used for fixed-service radio telephony only provided it does not interfere with service using continuous-wave telegraphy.

Note 5. The wave band from 1,550 to 1,650 meters is for use of radio telephone communication over natural barriers, but is not exclusive of other services.

Note 6. "Radio beacons" are radio transmitting stations which transmit signals from which a mobile direction-finding station may determine its bearing or position.

Note 7. "Radio-compass service" is here used to signify a direction-finding service in which a mobile station transmits to one or more fixed stations which in turn transmit back the bearing or position of the mobile station.

Note 8. The wave band from 525 to 650 meters is reserved for marine radio telegraphy, exclusive.

Note 9. Assignment of waves in band 16 will, in general, involve keeping the zones from 285 to 315 and from 425 to 475 meters open in coastal regions. Furthermore, in border regions, account should be taken of the wave lengths used in neighboring countries, and these should be suitably protected by a locally unused band of adjacent wave lengths.

Note 10. The restricted special amateur wave of 310 meters is for use by a limited number of inland stations and only where it is necessary to bridge large, sparsely populated areas or to overcome natural barriers.

Note 11. City and state public safety broadcasting should in small cities be conducted by interrupting the broadcast service of classes 2, 3, or 4 in case of emergency. In large cities this service will ordinarily have its own stations and will use the wave band, 275 to 285 meters, assigned to such service. Private detective agencies desiring to operate radio telephone broadcasting service should be required to co-operate with municipal or state services in the use of the wave band 275 to 285 meters, assigned to the latter service.

Note 12. By "technical and training school" in this report, is meant a school which in the judgment of the Secretary of Commerce is carrying on sufficient instruction of the proper character for training men for the radio profession to warrant the granting of a station license for that purpose.

Note 13. An amateur is one who operates a radio station, transmitting, receiving, or both, without pay or commercial gain, merely for personal interest or in connection with an organization of like interest.

Note 14. The Conference is of the opinion that broadcast transmitting stations should not in coastal regions be permitted on wave lengths closely adjacent to those assigned in the marine traffic and believe that its recommendations provide for adequate protection of such marine traffic. The Conference recommends the assignment of wave lengths adjacent to those used in the marine traffic to inland stations under such conditions as to avoid interference with the marine traffic.

B. It is recommended that the Secretary of Commerce assign a specific wave length to each radio telephone broadcasting station (except Government and amateur stations), this of course being within the band pertaining to the particular service of that station.

C. It is recommended that the wave band assigned to amateurs, 150 to 275 meters, be divided into bands according to the method of transmission, damped-wave stations being assigned the band of lowest wave lengths, interrupted or modulated continuous wave radio telegraph stations the next band, radio telephone stations the next band, and finally unmodulated continuous wave radio telegraph stations the band of highest wave lengths. It is recommended that amateurs be permitted to carry on broadcasting within the wave length band assigned by the Secretary of Commerce to amateur radio telephony.

A damped wave is one composed of successive trains in which the amplitude of the oscillation after having reached its maximum decreases gradually. This refers to waves from spark transmitters or other types of transmitters having characteristic decrement similar to spark transmitters. Transmitters employing continuous wave oscillators in which the variation in frequency or amplitude is abrupt, (as with the use of a chopper), are classed as damped wave transmitters.

An interrupted or modulated continuous wave is one in which the amplitude or the frequency is varied according to a simple periodic law of audible frequency. (This is commonly referred to as the interrupted continuous waves, or I. C. W.). A continuous-wave transmitter employing a rectified plate voltage which is not a substantially constant direct voltage is classed as an interrupted or modulated continuous wave transmitter. Note: This included transmitters in which the variation in amplitude or frequency is effected in a gradual way only. (For abrupt variation see damped wave.)

An unmodulated continuous wave is one in which the permanent state is periodic and has substantially constant amplitude and frequency. (This in-

Human Bodies Serve as the Aerial for this Radio Set

Left to right: M. G. Pierson, Miss Etta Barnett and Rudolf Wolf are listening to music from the Newark broadcasting station in a New York office, by means of the new aerial-less radio phone. By holding his finger on one of the terminals of the receiving set, one receives the music thru his body. From him it passes on to the other two thru the joined hands. The more persons in one of these human circuits the more distinctly is the sound of the distant broadcasting station heard.

cludes waves in which the amplitude variation is effected simply by the manipulation of a key. This is commonly referred to as a continuous wave, or C. W.).

D. It is recommended that the present regulations governing experimental stations remain in effect. An experimental station is one operated exclusively for technical or scientific investigations.

E. 1. The Conference experienced the greatest difficulty in providing even partly for the generally demanded services. The Conference therefore disapproved of the elimination of essential services by the introduction of direct advertising which might be expected to require extensive assignment of wave bands if permitted at all.

2. Many services for which radio telephony might otherwise be desirable can not practically be conducted by this means on account of the interference which such use would cause with other services of a more essential nature or for which there is great public demand.

3. In view of the demand for broadcast service by the general public, it is not desirable to disseminate information over wide areas for purposes of point-to-point communication except where that communication cannot be effectively maintained by other means.

4. A radio service in which a message is addressed or intended for a prescribed number of particular stations is not a broadcast service and is to be classed as a "multiple telegram" or "multiple telephone service." It was not thought advisable to use the much demanded short-wave bands for communications of this nature as they would serve a relatively small number. The available wave lengths for such multiple service messages are bands 2 and 5.

5. The Conference is of the opinion that the use of radio communication for "point-to-point" communication over land in most cases constitutes an uneconomic use of the available wave bands and it is recommended that at the present state of the art such communication should be carried on by other means, is so far as possible.

6. The Conference very carefully considered the proximity of wave bands assigned to amateurs and broadcast services but deemed it essential to utilize all of the available wave bands.

7. It was felt that waves longer than 275 meters should not be assigned to technical and training school stations because of the needs of broadcast services greatly desired by a large portion of the public in that zone, and because of the extension and organization of amateur wave lengths.

II. Power Limitation, Geographical Distribution, and Hours of Operation of Broadcasting Stations

A. It is recommended that the Secretary of Commerce assign to each radio telephone broadcasting station a permissible power based on the normal range of the station, such normal ranges for the different classes of service to have the following average values, larger or smaller values being dicretionary where conditions warrant.

Government broadcasting stations, 600 (land) miles.

Public broadcasting stations, 250 miles.

Private and toll broadcasting stations, 50 miles.

Normal range is the average reliable daytime ranges over which satisfactory communication can be obtained with good available receiving apparatus.

The Conference recommends that broadcasting stations should not be allowed to use unlimited power because of the fact that this will limit the number of services which can be rendered within a given area to an undesirable extent.

(Note: The Bureau of Standards of the Department of Commerce should make a study of the relation between the normal reliable range of a station and the antenna power on the basis of the use of good available receiving apparatus. It is recognized that this relation may change with the development of the radio art.)

B. It is recommended that the same wave (or overlapping wave bands) not be assigned to stations within the following distances from one another, except that these distances may be lowered if the normal ranges of the stations are correspondingly lowered.

For Government broadcasting stations, 1,500 miles.

For public broadcasting stations, 750 miles.

For private and toll broadcasting stations, 150 miles.

(Note: The Bureau of Standards should make a study of the width of wave band (expressed in cycles per second) required for satisfactory radio telephony. It is recognized that this width depends on the methods of transmission and reception employed.)

C. It is recommended that the Secretary of Commerce cause an immediate study to be made of the best geographical distribution of broadcasting stations with the view of attaining the best service with a minimum of interference.

D. It is recommended that in cases where congestion of radio telephone broadcasting traffic exists, or threatens to exist, the Secretary of Commerce assign suitable hours of operation to existing or proposed radio telephone broadcasting stations.

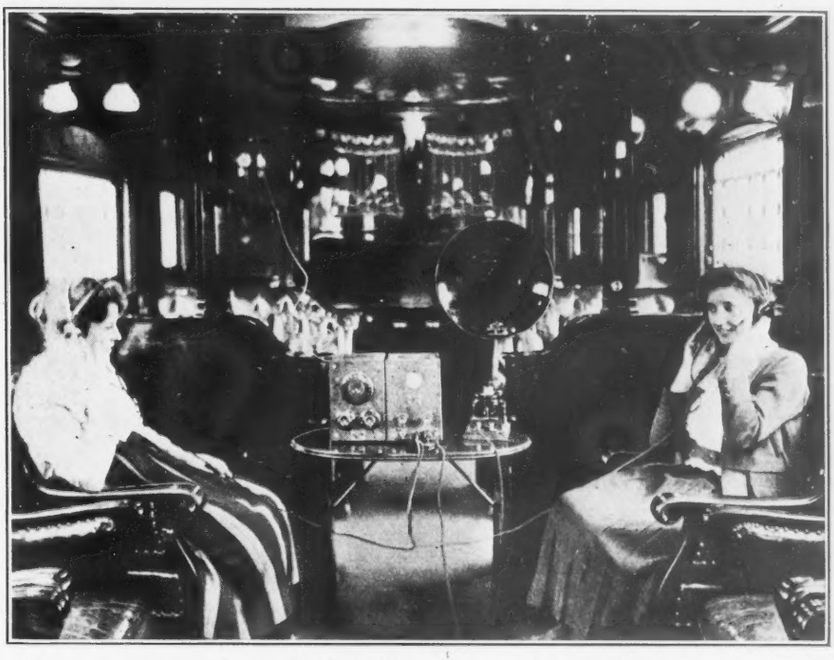
III. Considerations to be Followed in Granting Licenses

A. It is recommended that in the case of conflict between radio communication services first consideration be given to the public not reached, or not so readily reached, by other communication services.

B. It is recommended that subject to public interest and to the reasonable requirements of each type of service the order of priority of the services be Government, Public, Private, Toll.

C. It is recommended that the degree of public interest attaching to a private or toll broadcasting service be considered in determining its priority in the granting of licenses, in the assignment of wave frequencies, and in the

Radio Concerts in Observation Cars on Through Trains



No more lonesome hours, looking thru train windows at the scenery which at best is always a blur. The Chicago & Northwestern Railroad, running out of Milwaukee, has installed radio sets on its cars and now the passengers can while away the time listening to music, songs, stories and all sorts of entertainments which can be broadcasted over the radio waves. Soon, perhaps, a set in every Pullman berth?

assignment of permissible power and operating time, within the general regulations for these classes of service.

D. It is recommended that toll broadcasting service be permitted to develop naturally under close observation, with the understanding that its character, quality and value to the public will be considered in determining its privileges under future regulations.

E. It is recommended that direct advertising in radio broadcasting service be absolutely prohibited and that indirect advertising be limited to a statement of the call letters of the station and of the name of the concern responsible for the matter broadcasted, subject to such regulations as the Secretary of Commerce may impose.

F. It is recommended that when all available wave frequencies in any geographical region are already assigned, no further licenses for broadcasting be granted in that region until cause arises for the revocation of existing licenses.

G. It is recommended that private or toll broadcasting stations transmitting time signals shall transmit only official time signals and with authorization from and under conditions approved by the Secretary of Commerce.

H. It is recommended that the transmission of signals of such character or wave length as to deliberately interfere with the reception of official time signals constitutes grounds for the revocation or suspension of the transmitting station or operator's license.

I. It is recommended that license requirements for the operator of a radio telephone transmitting station include a knowledge of radio transmitting and receiving apparatus and of the International Morse Code, sufficient to receive at a rate of not less than 10 words per minute.

J. It is recommended that the establishment at any later date of any commercial transmitting stations having more than 1 kw. input to the antenna may, at the discretion of the Secretary of Commerce, be prohibited within 25 land miles of a Government or commercial station or in regions where congestion of radio traffic shall warrant such prohibition.

K. It is recommended that the sharpness of the emitted wave of the transmitting station affect the privileges extended to such station.

IV. Recommendations Relative to the Amateur

A. It is recommended that the status of the amateur be established by law and that the limits of the wave band allotted to the amateur as given above in section I, be specified in the law.

B. It is recommended that the amateur continue to be under the jurisdiction of the Department of Commerce.

C. It is recommended that for the purposes of self-policing among the amateurs, amateur Deputy Radio Inspectors be created, elected from their number of the amateurs of each locality; that upon receipt of notice of such election the Radio Inspector in charge of the district in which such amateurs are located shall appoint the person chosen a Deputy Radio Inspector, serving without compensation or for the sum of one dollar per year if compensation is legally required; that the duty of such amateur Deputy Inspector shall be to endeavor to the best of his alility to accomplish, under the direction of the District Radio Inspector, observance of the Radio Communication Laws and the Regulations of the United States and the observance of such local co-operation of measures as are agreed to in each community for the minimization of interference between the various groups of the public interested in radio; that such Amateur Deputy Inspectors be clothed with whatever authority may be necessary in the opinion of the Radio Inspector.

V. Technical Methods for the Reduction of Interference

A. It is recommended that the Secretary of Commerce at his discretion prohibit at any time the use of existing radio transmitting apparatus and methods which result in unnecessary interference, provided that such action should not be taken unless more satisfactory apparatus and methods are commercially available at reasonable prices and until an adequate time interval is allowed for the substitution of the more satisfactory apparatus.

B. It is recommended that the Secretary of Commerce at his discretion prohibit at any time the use of existing radio receiving apparatus which cause the radiation of energy, provided that such action should not be taken unless more satisfactory apparatus and methods are commercially available at reasonable prices and until an adequate time interval is allowed for the substitution of the more satisfactory apparatus.

Note: Certain forms of oscillating receivers cause the feeble radiation of continuous waves and may therefore be a source of local interference.

C. It is recommended that the Bureau of Standards make a study of the technical methods for the reduction of interference, with a view to publishing their findings, giving special attention to the following:

(1) The reduction of the rate of building up (increment) of oscillations in radiating systems. (This rapid building up of oscillations occurs in damped wave and interrupted continuous-wave transmitters, and may, of course, be eliminated by the substitution of other types of transmitters. It may, however, be reduced in these types by proper circuit arrangements.)

(2) The reduction of harmonies in continuous wave transmitters and of irregularities of oscillation. ("Mush" in arc transmitters and "swinging" of the frequency in some continuous wave transmitters not employing a master oscillator.) "Mush" signifies small sudden irregularities occurring in the antenna current of arc transmitters. "Swinging" signifies relatively slow changes in the wave frequency.

A harmonic of a wave is a wave whose frequency is a multiple of that of the given wave. (The wave length of a harmonic is thus a sub-multiple of the wave length of the given wave.) It is often convenient to include as harmonics, frequencies which are dependent on the frequency of the transmitter but which are not exact multiples.

(3) The comparison of the variable amplitude method with the variable frequency method of continuous wave telegraphy.

(4) The preferable methods of telephone modulation to avoid changes in the frequency of oscillation.

(5) The proper circuit arrangements of regenerative (including oscillating) receivers to avoid radiation of energy (as by the use of a radio-frequency amplifier with an untuned antenna or with a coil aerial.)

(6) The use of highly selective receiving apparatus, including a list of approved forms. Note: A selective receiver is one which enables the user to hear a desired signal and to exclude the undesired signals. The more perfectly this is accomplished, the more highly selective is the receiver.

(7) The use of receiving coil aerials instead of antennae, with special reference to high selectivity.

(8) The reduction of interference with radio communication of other electrical processes, such as the operation of X-ray apparatus and electrical precipitation.

(9) The study and standardization of wavemeters. Note: A wavemeter is an instrument for measuring wave frequency or wave length.

A Mobilization of Home-Building Capital Needed

We have mobilized the commercial capital of the country through the Federal Reserve Banks. We have mobilized the farm mortgage capital through the Farm Loan Bureau. The country badly needs a mobilization of the home-building capital based upon our building and loan associations, insurance companies, and savings banks. We have a sound foundation upon which to build some sort of structure that would cheapen home building capital, give it more mobility to all regions and afford greater security. A conference to consider this problem would be of great value.

HERBERT HOOVER,
Secretary of Commerce
of the United States.

The Home Electric Legion Announces

A New Service for Bachelors-Electric!

Growing Group of Bachelor Brothers in Home Electric Legion Demands Assistance in Securing Fair Consorts for Electric Homes

ONCE we saw a man flick hot cigar ashes on the ground where another man had just flicked five gallons of gasoline. The memory of what happened next is one that we shall cherish as long as we draw breath. It was dramatic. It was spectacular. And it was unexpected. A little gesture can have such far reaching consequences!

And today we were reminded of that incident. Four months ago a little gesture of ours—a gesture with a *broad, bold* stroke, it is true —but still a *little* gesture, called into existence the Home Electric Legion, enthusiasm for which has swept—or rather, electrically vacuum-cleaned — the nation. Influenced by its straightforward propaganda for the complete electrification of all dwelling places of electrical men, countless home owners have been spurred to action.

All this we expected. But the unexpected, the dramatic and the spectacular consequence of our little gesture was the sudden demand from Bachelor Brothers of the Legion for a Matrimonial Bureau to provide them with suitable consorts.

One man declares that at our instigation he made his home electrically *modern* from radio antenna to meter reading box. One day he looked at the electric samovar in his dining room.

"Watt-kins," he demanded, addressing his butler, "why don't we ever use that thing?"

"'Ow does one use it, sir?"

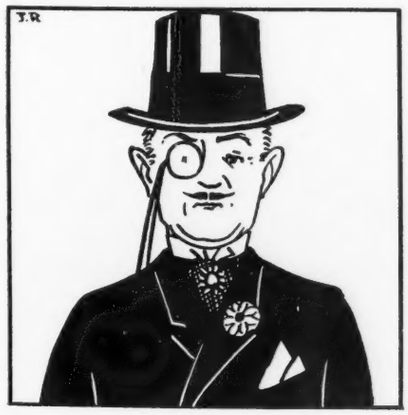
"I suppose one puts cold tea in it and turns on the juice until it gets hot."

"Yes, sir; thank you, sir," agreed the butler cordially.

But the lay butler, unaccustomed as he was to the niceties of electric samovary mistook the master's meaning, thank you, sir, and put into the instrument a quantity of that special liquid which up to that moment the master had always designated as "cold tea."

"And the result," writes the irate bachelor, "was a perfectly pestiferous perfume. I must have a wife thoroughly versed in the intricacies of afternoon tea and electric teasers."

Thus we find ourselves face to face with a demand for a Legion Love Service and we hereby announce its inauguration. On this page we reproduce photographs and descriptions of a few of our eligible Bachelor Brothers. These listings are culled at random from our voluminous files. Ladies desiring correspondence with the gentlemen described are requested to address them in care of our office—by number, using plain, unscented envelopes.



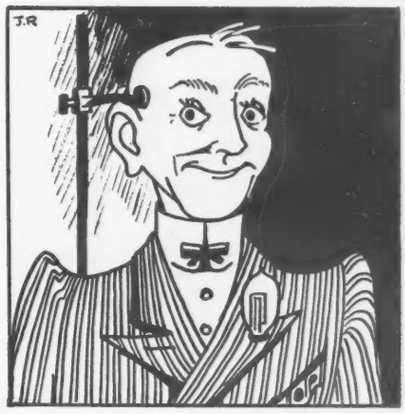
Number 3728-A

We feel absolutely no compunction in recommending our No. 3728-A to any young woman seeking a handsome husband with a Class A Home Electric. This gentleman has a pleasing manner; can change a fuse or a waistcoat with equal taste and celerity; sings tenor in moderation; drives an electric with either hand and waltzes like a spring zephyr ruffling a field of blossoming buckwheat.

Number 123

He's a bit technical, No. 123 is. The girl who makes him happy must learn to distinguish between watts and amperes, ohms and volts. But if, occasionally, she will just assume an air of innocent ignorance and ask him to explain just why a bell ringing transformer doesn't work very well on DC circuits, all will be blissful. Due to his tendency to wear green ties with brown suits, Number 123 has been suspected of color blindness, but this failing is more than compensated by his taste in electric refrigerators, which, being finished in flat white, offer his faulty color sense no chance to do him dirt.

One of his pleasing little accomplishments that livens up the breakfast hour involves the sprinkling of salt upon the terminals of the electric toaster, and the maneuvering of the attachment plug in such a way that a handsome purple-yellow arc is formed. He then explains that the salt is really sodium chloride and that the color of the arc is enhanced by the presence of the sodium. While No. 123's toast is either burned or cold, we feel that his background of science more than compensates for his culinary indifference.



Number 6294

While it is true that Number 6294 did buy some of his sartorial equipment by mail; and while we admit that there are buttons on the edge of his pockets, his dash and verve make him an ideal mate for a romantic young woman.

BRIEF SPECIFICATIONS:

Hair: One white, three brown. *Eyes:* Both green. *Teeth:* Upper, own; lower, quick demountable. *Disposition:* Modest. *Income:* Also modest.

Electrical Merchandising
The Monthly Magazine of the Electrical Trade

believes that:

THE executive in charge of the business side of the central-station should be made responsible for all contacts and relations with the public, including not only selling and advertising, but inspection and trouble service to the customer, the sale of company securities to the public, and all the civic activities and trade relations of the company—concentrating this entire authority n a man big enough to function in this larger way.

THE central-station commercial executive or sales manager should be regarded as occupying the position of sales promoter and friendly adviser *for the entire local electrical selling family, and charged with promoting the business success of each and all local concerns*, and in this way promoting the company's business. Lists of electricity users and appliance owners should be shared by the central-station with local dealers, to promote the sale of appliances. Central-station advertising should list names and addresses of all local dealers as well as company's own electric shop. It is to the central-station's interest to foster and encourage all possible retail sales by any retail dealer in its community.

(*For a complete statement of* ELECTRICAL MERCHANDISING'S *platform for the electrical industry, see February, 1922, issue, pages 52 and 53.*)

Your Part in the "Electrify" Campaign—

THERE are two reasons why the big movement is on in the electrical industry to "Electrify for Better Times." One is the condition of the country—the people are ready to embrace good times and go ahead. The other is the condition in the industry—the electrical business is not ready for this market. And every man must have a picture of this situation before he can think his way into it and see what it means to him.

Your part in it? Ask yourself what you are in the electrical industry, where you belong and what your function is—there in the electrical family in your own town. How can your work contribute to business development for all? How can you benefit by the increased prosperity of all? Think through that far, and no man need wonder what he should do. The opportunity is not a spectacular pot of gold, but rather a great market, your knowing hope and confidence that good times indeed are here and folk can go ahead.

How the Underwriters Have Held Back "Convenience Outlets"

CONVENIENCE outlets have been introduced rather slowly—for two reasons. First, a considerable time was necessary to decide on the best type of outlet, and during that time people hesitated because the several types did not interchange, while a device arranged for use in lamp sockets could be used on any lamp socket. This reason has now disappeared, and now we have the standard parallel-slot outlet, a standard convenience outlet takes the standard plug of any appliance.

The second deterrent to the use of convenience outlets has been the attitude of many of the underwriters and inspectors who have made it easier and cheaper for the public to install lamp sockets than to install convenience outlets. In some cases they have even made it easier and cheaper to install *only one socket in a kitchen* and to use a flat iron *and* a lamp from that one socket by means of a branch plug, than to install convenience outlets or additional sockets.

The way the underwriters and inspectors accomplished this result was by their rules requiring convenience outlets to be on separate circuits—in some cases requiring pilot lights on convenience outlets while putting no such expense on sockets.

Such a policy of the underwriters and inspectors as a matter of fact, really increases fires and troubles.

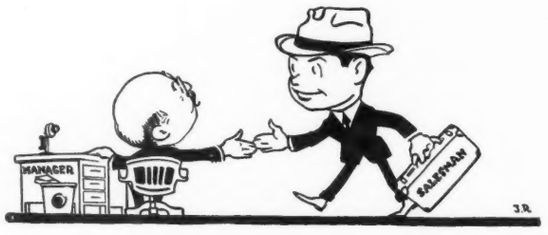
Can you beat it?

On Selling Chop Suey to Chinamen

IT TAKES smart salesmanship to sell chop suey to a Chink. Suey is a concoction which the Oriental looks upon simply as a means of enrichment, not at all as an article of food. He is interested in the margin of profit, not in the ingredients. From which you will deduce that the way to sell chop suey to a Chinaman is to sell it for resale and not for his personal consumption.

This simple and infallible method has recently been applied in selling the electric home idea to the building industry of Cleveland. The builders decided to have a show, and the electrical interests of the community promptly took space therein, in which they erected a typical electric home. The electric home was the most popular feature exhibited drawing such crowds that police regulation was necessary. The builders thereby were "sold on" the popularity of the electric home as a money-making idea.

The Chinaman is interested in chop suey as an actuator of the cash register. The building industry is interested in electrical homes for exactly similar reasons.



Alibis or Explanations?

A VERY thin line divides alibi and explanation. On one side of that line is the fellow who excuses himself for failure; on the other side is the man who learns a lesson from a failure.

There is nothing disgraceful about failure. Irving Berlin once said that he had written more songs that were failures than any other composer, dead or alive. Edison made innumerable incandescent lamps that were failures before he made one that was a success. We know a salesman who made one hundred and two demonstrations before he made a sale.

Failure is an incident—until you make it a habit.

"I didn't get the order because ——"

Is that an explanation or an alibi? Ask yourself. Your conscience knows.

Why Separate Twin-Jobs?

AT a recent meeting of a state association of electrical contractors and dealers one of the main addresses was entitled "Merchandising vs. Electrical Wiring." Why the *"versus"?*

It seems to us that the job of supplying quality wiring to American home-owners is as much a merchandising function as furnishing the same home-owners with electric appliances after they have their convenience outlets to supply their electricity.

And since, before we can sell a single lamp or toaster or percolator to a customer, we have to provide him with a way to use it, isn't the job of selling wiring the most primary merchandising job in our business? We think it is.

To us the expression "Merchandising vs. Wiring" sounds a good deal like "Ham vs. Eggs"; "Mutt vs. Jeff"; "Montgomery vs. Ward"; "Rank vs. File" and "Mike vs. Ike."

Let's not separate twin names and twin jobs that have belonged together since the newspapers were running headlines about Edison's new bamboo filament!

Why Not Electric Lighted Phonographs?

PHONOGRAPHS operated by electric motors, that can be connected with a convenience outlet just as easily as an electric toaster can be connected, have come to stay. It is only a matter of time until electrically-operated phonographs displace the hand-cranked machines. While this development is under way, somebody should wake up to the fact that electric light is needed in a phonograph just as much as an electrically-operated motor. Many people prefer their music in the early evening, at twilight, when it is too early for lights and when the shadows hang thick within a room. Under these conditions it is not easy, as every one who has operated a phonograph knows, to find just the record one wants in the dim light in the record cabinet, and it is even more difficult to start the needle properly when the record is in place. And even when the room *is* illuminated, say with portables and floor lamps, it is still difficult to find the record and start it under these half-light conditions. The extent to which flash lamps are now used, indicates the need for a miniature lamp illuminating the needle and transmitter and for another miniature lamp illuminating the interior of the record cabinet. Both lamps could well be wired so that opening the door of the record cabinet or lifting the lid of the music chamber would at once "turn on the light."

Contempt for Customers

ONE of the most extravagant of human frailties is to express that contempt which the man of a little knowledge feels for the man who has less. It is human nature to use the ignorance of others to magnify our own erudition. Yet in business this weakness costs us money because it loses us sales.

A woman enters your shop. "I want an AC heating pad," she says. The tactful salesman would proceed to sell a heating pad without comment, but one who is too conscious of his knowledge and over-anxious to display it will reply in effect, "An AC heating pad? Why, you poor female fish, don't you know that heating pads operate the same on either AC or DC current? Any boob ought to know that! Now, what voltage have you got?" And more to the same effect, all calculated to exalt his own pride at the expense of the customer's.

Expressing contempt for customers is not restricted to sellers of electrical wares. Doctors delight in telling their patients what fools they are to get sick, lawyers flay their clients for signing papers which lead to litigation, even editors sometimes assume a superiority and insult the intelligence of their readers.

It is a common, natural and at times an excusable fault, but it is extravagant. It costs us money because it loses us both good will and sales. Let's try to cut it out.

Please, Messrs. Manufacturers—Won't You Follow Your Products Into User's Homes?

Editor ELECTRICAL MERCHANDISING:

Won't you make a plea to the electrical appliance manufacturers to gather data on the performance, operation, cost, maintenance, etc., of their products in a number of typical homes, together with good photographs of real installations in *real* homes, which will be available for publication?

I have been doing a good bit of writing for various magazines and I find the most extreme difficulty in getting from the manufacturers any definite data on the practical, day-by-day use of their products in the home. I can get any amount of factory and technical data; but the manufacturers seem to have no contact with their product after it leaves the dealer's store. And the photographs they supply are nearly always studio pictures—and obviously so—or pictures of the manufacturer's wife and children using the product,

and neither are satisfactory to the argus-eyed editors who are looking for exceptional pictures.

Last year I combed the lighting industry for really good pictures of residence illumination in attractive houses and gathered about twenty, all of which were promptly refused by *Good Housekeeping*, because the interiors were commonplace. As a result, the magazine supplied its own pictures for my article. The pictures used were good in that the interiors were exceptionally attractive—but the lighting was adversely—and not wrongly so—criticised by some lighting friends.

I have a feeling that the big magazines are ready to use a lot of electrical material if it can be made acceptable to the editors, and, of course, it isn't going to be particularly harmful to the manufacturers to have this appear. So I leave the idea in your hands, knowing that you will be able to expand upon it to be helpful to the greatest degree.

Yours very truly,

A WOMAN WRITER ON HOUSEHOLD TOPICS.

EDITOR'S NOTE:—The above letter has been received by ELECTRICAL MERCHANDISING from a well-known woman writer on housekeeping topics. She is certainly right in her statement that the industry needs to have available more actual pictures of actual housekeeping scenes using electrical appliances. Perhaps as ELECTRICAL MERCHANDISING'S ambition to see every electrical man living in an electrical home of his own, becomes realized more generally, we shall have more places to take appliance pictures and more such pictures. Meanwhile our correspondent's letter suggests a useful field for co-operation on the part of our manufacturer friends.

Ideas for the Man Who Sells

Plans, Schemes and Methods Gathered from Successful Selling Experience to Increase the Sale of Electrical Appliances

Do You Use *All* These Ways of Getting Washing Machine Prospects?

BY FRANK H. WILLIAMS

Do you have a washer constantly running and full of suds in your window?

Do you keep the interest in this washer alive by announcing in the window on a large card each week all the new customers who purchased washers from you during the past week?

Do you get in touch with the architects and building concerns and find out the names of new home owners and do you then canvass these new home owners for washing machine prospects?

Do you offer to do demostration washings in homes, and do you advertise this offer extensively and include a coupon on which people could apply for a demonstration?

Do you ever stage contests in which you offer a prize to the woman who writes the best 200-word letter on "Why I Want a So-and-So Washer?" If you do use such contests, do you follow up all the answers received in the contest with personal calls?

Do you ever conduct contests in which you offer prizes to those women who do a certain amount of washing in one of your machines in the smallest amount of time and do you stage such contests in your store? If so, do you secure the names and addresses of all the women who enter the contest and who come to the store to see the affair and do you then follow up all the contestants and visitors with personal solicitation work?

Do you get the utmost possible advertising and sales value out of people who have purchased machines from you? Do you find out who the friends and relatives of these users are and do you ascertain whether or not these friends and relatives own washing machines and do you follow up the non-owners with strong personal solicitation work? Do you in this solicitation work emphasize the fact that "Mrs. So-and-So has one of our machines and is wonderfully pleased with it?"

Do you canvass the neighborhoods in which you have sold machines? Do you realize that in the ordinary neighborhood every housewife knows which homes have washing machines and do you realize that those housewives who do not have washing machines are envious of those who do, and are, consequently, splendid prospects for you?

Get After the Bride's Relatives

Do you follow up the announcements of engagements which regularly appear in your local newspapers and solicit the relatives of prospective brides? Do you urge these relatives to purchase washing machines for the bride and to buy such machines from you?

Do you get all the business you should get out of replacements? Do you advertise the liberal terms which you will allow on old machines which are turned in on new machines?

Do you keep track of all prospects who have ever manifested an interest in washing machines and do you follow them up by means of direct mail advertising, personal letters and personal solicitation from time to time?

Do you ascertain whether or not each person who comes into your store is a washing machine prospect and do you then put this prospect through the usual selling and follow-up routine?

Do you cash in on all advertising possibilities, such as the appearance of a washing machine in a popular movie, or a declaration by some lecturer to the effect that the washing machine has done wonders toward cutting down the drudgery of house work? Do you use such stunts as topics for window displays or newspaper advertising?

Are you, in short, putting the utmost possible salesmanship into your selling of washing machines?

If not, start doing so NOW.

False Pride Won't Help the Outside Salesman at Dinner Time

"In the sketch above, the gentleman on the left, who is eating his meal from a lunch counter, is a very proud individual. He is too proud, in fact, to carry a cleaner along with him when he goes out to solicit prospective customers," explains the *Apex-o-meter*, a fortnightly publication issued in the interests of Apex-Rotarex salesman. "It would injure his dignity a great deal, he thinks, to be seen carrying a vacuum cleaner on the street; but when meal time comes, he has to swallow his dignity, because his income enables him to eat at no better place than the nearest moderate-priced hash house. The salesman on the right takes his vacuum cleaner along with him, wherever he goes. It is his stock in trade, and he is proud of it. This is the boy who makes real money; he gives and gets service. Which is better: Nothing in your hands, and beans for dinner; or a shiny, eleven-pound cleaner to carry during the day, and a juicy steak, with all the fixin's, at meal time."

Sell Christmas Tree Sets to Light the Summer Garden Party

Christmas tree lighting sets are wrongly named as far as their summer sales possibilities are concerned, for what more beautiful garden decorations could one have for the summer festival than those ropes of miniature colored lights strung about the garden?

Now that summer is coming, children's parties are here heralding the advent of other outdoor festivals. There will be the usual flock of garden parties, strawberry festivals, children's parties—in fact, few are the parties given in summer that do not spread themselves out over the house, the veranda, and into the gardens.

So it is that many a garden needs special lighting, if only for one evening, in the summertime. And the Christmas tree sets give just the soft light wanted, besides making it possible to achieve many beautiful, colorful and fantastic effects. Strung from tree to tree or bush to bush, so that they shine like colored stars behind the branches—wound around posts and tree trunks—stretched over the refreshment tables on the lawn—they are all the decoration needed to make that garden a fairyland of beauty.

For the strawberry festival, little strawberry lights can be had. And novelty lights of countless other shapes can be had to suit the spirit of the party—roses, lilies, pine cones, canaries, parrots, snow men, farmer boys, clowns and angels.

Chinese lanterns, lovely as they are, have fewer decorative possibilities than these versatile lighting sets, which are now made so that any number of ropes of eight lights each may be plugged together, all receiving current from one receptacle in the house.

A Cleaner That Swept 500 Miles of Rugs

The equivalent of more than 15,000 room-sized rugs was cleaned by an electric vacuum cleaner in a recent factory test. The machine was attached to an apparatus in such a way that it moved back and forth over a rug and was kept there for twenty-three days, ten hours a day. During this time the machine, a Torrington, traveled a distance of more than 500 miles. The motor, which was oiled every three days, ran continuously. At the end of the test the cleaner was reported as being in perfect condition, the bearings and armature shaft showing no appreciable wear and the cleaning efficiency being unimpaired.

"Electrical Breakfasts" in Hotels for Early Rising Auto Tourists

BY P. H. WHITING
Central Maine Power Company,
Augusta, Me.

The automobile tourist, with his unaccountable passion to "start early," has brought a new problem—that of early breakfasts—into the life of the hotel keeper. Here's how the electrical industry can help him solve it—incidentally spreading the gospel of electrical cookery and making a profit:

Suppose each guest should find this little framed announcement in his room:

An Electrical Breakfast

For the benefit of our guests who wish to start before our dining room is open at 7 a.m. (8 a.m. daylight saving time) electrical cooking equipment is provided, for cooking your breakfast in your own room.

Menu

Fruit
Cereal

Eggs, fried, boiled or poached	Chops, broiled or grilled
Waffles	
Bacon	Toast

Coffee

Please notify the office at what time you wish breakfast, so that your table may be set and the desired foods and equipment on hand. An electric percolator, combination electric table stove, or waffle iron, will be supplied.

For the larger hotels, one waitress could take the early watch and look out for all breakfasts. For the smaller hotels, the equipment could be made ready and loaded and the guest shown how to do his own cooking. In this latter case the night clerk could have an eye on the cooking and see that all apparatus was disconnected when the guests had finished. An electrically cooked breakfast is such a simple affair that it would be hard for anyone to go wrong.

Here is a new way to spread the gospel of electrical table cookery. Why not try it out on your own local hotel men?

A Scoreboard of "Washing-Machine Sales in Town"

Tack charts showing by the use of colored pins just where present and prospective business is located, are often used by the sales departments of large concerns to visualize their selling problems and to bring together a complex group of facts in the most readily accessible and graphic form.

With the idea that information thus assembled can be assimilated equally readily by the public, the Sacramento Appliance Company of Sacramento, Cal., recently utilized such a map as a feature of its window display with most effective results. The map shows the city of Sacramento, with red, orange and blue tacks to indicate the location of the homes to which have been sold washing machines and vacuum cleaners. A placard at the bottom reads: "The map shows one of the good reasons why Sacramento is one of the cleanest and healthiest cities in the world. Are you doing your housecleaning and washing the Modern Way—'The Electric Way'?"

What the Colors Represent

At the side are placards of the same color as the tacks used, explaining what the colors represent. The blue tacks, of which there are approximately 2,800, show the location of every Royal vacuum cleaner sold, the orange tacks indicate the location of Haag washers and the red tacks of the Apex washing machines. The intention is to include other appliances in this record whenever it becomes convenient to compile these statistics.

The map has aroused considerable interest. Not only does it convey more strikingly than any other way, an idea of the volume of sales made, but it has an interest to every passer-by who stops to look up his or her home district to see how many washing machines are located on that block. It has been shown, in fact, that there is always a group in front of this display, no matter what of interest may otherwise serve to attract the attention. It serves as a convincing argument where a volume of any one appliance has been sold.

Such a graphic chart can be used in other parts of the country without any difficulty, and the results will prove highly remunerative.

Marketing New Lines at a Profit

The Dealer Who Makes Money Is the Man Who Capitalizes New Developments of the Electrical Art in Terms of Consumer Sales

Light Up the Church "Social" with Farm-Plant Outfit

Dealers who sell farm light and power plants may profit by the example of one enterprising agent who seized upon a valuable opportunity for demonstrating in a convincing way the advantages of owing a farm-lighting plant. Not only was he able to give a very effective demonstration of his particular make of farm-lighting plant but he was able to reach the exact class of people that are in the market for farm-lighting and power plants.

This is how he staged the demonstration. The Ladies Aid Society of the West Lowell M. E. Church—a country church 6 miles from the town of Lowell, Mich.—hold annually a "Chicken Pie Supper" at which they not only serve a delicious chicken-pie supper but also offer for sale much fancy work, candy, flowers, maple sugar, etc., at a very low price. Naturally the event is very well attended. The supper is held in the church itself while the goods for sale are grouped on tables inside and outside the church.

When the farm-plant agent learned the date on which the supper was to be served he investigated and found that the church was lighted with ordinary suspended kerosene lamps.

Immediately he called upon the officers of the Aid Society and offered to supply all the electric lighting needed, free of charge. Of course his offer was gladly accepted.

On the day of the supper he drove his car over to the church, strung the wires along the chandeliers and through the doors of the church to the tables and booths located outside. He supplied an abundance of bulbs and placed them wherever needed. The lighting plant was mounted on the rear of the agent's car, which was placed not far from the entrance of the church.

A Demonstration to Hundreds of Possible Buyers

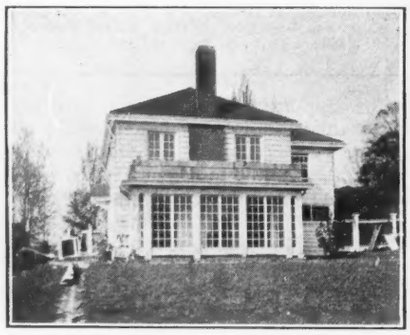
When the farmers and their wives began to arrive they were filled with wonder and delight at the transformation which the electric lights had worked. The nitrogen bulbs gave a dazzling white light which illuminated the church far better than it had ever been lighted before. The efficient little plant on the rear of the agent's automobile chugging away attracted the attention of nearly every farmer who came and soon they began to gather in little knots around the plant to investigate it closely. They did this from pure interest and without any solicitation from the agent. They learned what it cost to operate the plant, how many lamps the plant would light, that it started on gasoline and then switched to the cheaper kerosene and a whole lot of other things about it. In fact they were full of pertinent questions regarding the plant.

A demonstration of this kind held at a country church supper, a church fair, at the special meetings of the Grangers or the Gleaners or similar gatherings where farmers congregate is very effective in promoting sales. It is effective first: because it reaches the exact class of people who buy farm lighting plants and reaches them at a time when they have leisure enough to thorougly investigate the plant; second: because the demonstration shows in a convincing way the plant's practicability and advantages; third at such a demonstration as above described the interest is voluntary and spontaneous—it does not need to be created by the agent.

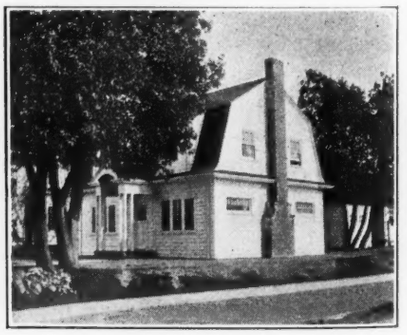
Progressive dealers will do well to watch for notices of local events of interest at which farmers gather after the "chores are done." By being on the alert for such events and putting on demonstrations they can accomplish a great deal more than by merely interviewing the individual.

In Tacoma, Wash., They Start Their Furnaces by Pushing Switches

You can see at once that these attractive residences of Tacoma, Wash., are fine places to live in. But their greatest attraction is invisible in the pictures. For the men of these houses never have to rise at 6 A. M. on wintry mornings to stoke obstinate furnace fires; and Tuesday evening never finds them wheeling galvanized ash cans out to the curb to be ready for the prompt call of the Wednesday ash can man.



These houses, like many of their neighbors, are heated by electricity. A special house-heating rate of ½ cent per kw.-hr., is made by the local lighting and power company, and the customer has the option of using his heating electricity supplied through a separate meter, in either air-heating or water-heating furnaces.



During 1920 the home at the left used 26,200 kw.-hr. with its warm air-furnace, and its owner paid a heating bill of only $131. Some 54,000 kw.-hr. were used in the same time to heat the center house. And the man who carries the latch key for the house on the right paid $163.90 for his twelve months' heat. Think of the saving in laundry bills!

Add an Outdoor Room to the Home Electric

Contractors who are pushing the completely wired home idea will do well to keep in mind the fact that an outdoor room should always be made a part of the home electric. The outdoor living room is another business-getting idea for the contractor and is another opportunity for getting the consumer to increase his use of electricity, to his own advantage as well as to the electrical industry in general. The California Electrical Co-operative Campaign is spreading the story of the outdoor living room in the following words, which the contractor will do well to build into his local advertising:

One of the very first uses made of light was to guide the wanderer to his home and to welcome those returning from their duties abroad, and this has been continued by the use of the porch light in the modern electrical home. To this light is also intrusted the first evidence of hospitality to our visitors. Placed where it will illuminate the house number and the entrance steps, it serves well its several purposes.

Porches are much more than mere entrances. They are the link which connects the garden to the home, and, especially in our state, have attained a charm which makes them one of the most enjoyable parts of the home. Informality is the keynote of the furnishings. Reed or rustic furniture, couch hammocks and plenty of gay cushions make the porch a most welcome retreat to the tired business man after a hot day at the office, and the young folks of the family will have no inclination to spend their time away from home if they have such a delightful place to entertain their friends.

A Cheery Atmosphere

In all the varied uses of this outdoor living room electricity is the silent, efficient servant. Lighting is perhaps the most obvious way in which it serves, and, as in the indoor living room, connections should be so arranged that the light may be varied to suit the occasion.

For the evening visit of friends, a soft cheery atmosphere is desirable. This is furnished if the lights are concealed in flower baskets, and the illumination is reflected from the walls and ceilings, which should furnish a suitable reflecting surface. These baskets may be of reed to match the furniture, and a reed floor or table lamp is useful in more ways than one. If this lamp is selected with a combination of direct and indirect light, its direct illumination supplements the light from the flower baskets. If reading light is desired, the indirect portion may be switched on to furnish it. In the fanciful form of a Japanese lantern, the shade gives an air of festivity to the whole place.

Music adds greatly to the delights of these evening gatherings on the porch. Guitars, ukeleles and banjos in skillful hands make the summer nights joyful, and the phonograph, with its electric motor, may be moved to the porch and attached to the handy outlet there. Sentiment is the very foundation of family life, and music gives expression to this sentiment perhaps more tellingly than any other agency. Not alone in material things but in the more intangible and spiritual enjoyments of the home electricity plays its unobtrusive part. In the motor on the phonograph and on the piano player we have further evidence of its versatility.

Most of us busy folks who love our gardens feel at times a sense of aggravation that we cannot spend more time in their enjoyment. The wonderful night-time illumination of the lovely gardens at the Pasadena electrical convention revealed unsuspected loveliness. The delicate foliage and colors were exquisitely brought out and the massing of lights and shadows rivaled a Maxfield Parrish landscape. All this was accomplished by electric lamps in reflectors inconspicuously placed on the ground among the shrubbery. I am sure the suggestion to extend the hours of enjoyment of the beauty about us in this manner occurred to many who delighted in this new demonstration of the artistic possibilities of outdoor electric lighting

A Room of Many Uses

This outdoor living room has very practical day-time uses too. Here with the electric sewing machine the family sewing is done in comfort on the warmest days. Meals out of doors on the porch have new delights with the electric toaster, grill and percolator plugged into a convenience outlet. When friends drop in during the afternoon, it is a simple matter to serve tea on the porch with the electric tea service—especially if the tea wagon, when wheeled out, is found to have electrical outlets.

All the Comforts of Electricity in This New Orleans Sun Parlor

Once more our corpuscle circulator jumps in glee! Another electrical man has confessed to the home practice of his preachings. Here's the electric sun parlor in the residence of W. E. Clement, commercial agent of the New Orleans Railway & Light Company. Notice that electric tea samovar. It's been in almost daily use for eight years. And it has never given a moment's trouble. It is also a pleasure to report that the Clement family does its lighting, its cleaning, its motoring, and much of its cooking electrically, thus doing its bit for the electrical idea in the Southland.

Store Equipment and Methods

Timely Suggestions on How to Plan and Equip Your Store— Systems Which Are Used in Successful Merchandising

Quickly Assembled Window Displays That Will Quicken Business

Good display and sales plans do something more than make immediate business. They are a tonic to jaded buyers.

Interest in Show Window When Changing Display

Do you pull down the window-shade when you are changing the window-trim? If you do fasten a card containing a big question mark to the shade. Then place another but smaller card between the shade and the glass. This card should read:

WHEN THE QUESTION ARISES

You'll find here the electric iron that will give you the best service for the money.

Emphasizing the Importance of the Electric Washer's Value

Get a desk telephone instrument with a short length of cut-off cord dangling from it. Place it in the window with:

IT'S NO USE TALKING

A woman wants her washing done at home—clothes whiter and all. See how little labor with this washer. Gladly shown inside.

Labor-Saving in Homely Terms

Doubtless you have heard the expression "elbow-grease" used in referring to work that calls for heavy use of the arm muscles—such as using a broom, beating rugs, carpets, etc. Label a number of empty cans plainly: "Elbow Grease." Have a heap of them showing above the top of a garbage an. Use a placard:

YOU WON'T NEED ELBOW GREASE ANY MORE

This vacuum cleaner will do anything your strength can do in cleaning floor coverings. Come inside; We'll show you.

She'll Make a Note of It

Letter a sign on an old music roll (player-piano) reading:

MUSIC TO HER EARS

An electric toaster that will harmonize with any breakfast for only ———

Playing Up the Percolator

Tip over a can or a sack of coffee (in the bean) on the floor of the window, near a percolator. Use this placard:

SPILLING THE BEANS

The secret of her good coffee is in this percolator. Step inside—we'll make it clear.

Helping Along Fan Sales

Put a large dictionary on the floor of the window, well to the front. Have it opened at the word "Comfort." The word should be "rung" with a heavy pencil. Behind the book have a placard:

FIND OUT WHAT COMFORT REALLY MEANS

This little fan gives you just the right breeze—not too strong. Let us show you its gentle relief.

Of course the fan should be displayed.

"Upper Level" Show Windows Increase Display Space and Afford Better Store Illumination

Not only does the sign, like a mammoth headlight in many colors, win business for the Central Electric Company, Detroit, Mich., but the "upper and lower level" show windows do the same work. Forty-eight 150-watt Mazda lamps are arranged in series of eight each for the six following colors: amber, orange, blue, green, red and clear, a flashing apparatus changing the color of the illumination every three seconds. The upper level windows are planned especially to catch the eyes of people passing in automobiles, whose angle of vision, of course, is higher than that of persons afoot. This is the view of the store proper from the top of the steps leading up to the main sales room. A suggestive feature is the "upper level" show windows. By running the window clear up to the ceiling level a much greater volume of daylight is obtained.

Five Thousand Lighting Bills Paid Each Month at This Dealer's Store

On page 359 of the pictorial section of the January ELECTRICAL MERCHANDISING, there is shown a photograph of what is really a branch office of the Washington (D. C.) central station company located at the rear of the first floor of the retail store of the Potomac Electric Appliance Company.

"As you will note in the picture,

the electric light and power company maintains two clerks at this branch and the figures show that approximately five thousand bills are paid at this branch office per month," explains J. C. McLaughlin, general manager of the dealer company.

"The clerks at this branch are employees of the power company and our employees have nothing whatosever to do with the handling of their bills or contracts."

"In addition to the payment of electric light bills and the signing of applications for service, local street car tickets and street railway commutation books for suburban patrons are sold at this branch."

Washington is one of the cities where this plan of having electric light and power bills payable at the stores of local electrical dealers is already in operation. With thousands of customers crowding in to pay their bills each month, it is obvious that many will stop to inspect and to purchase appliances—thus benefiting both dealer and lighting company.

Why shouldn't electric bills, in your town, be payable at the nearest electrical dealer's store?

Let the Display Stimulate the Imagination

To make a display of electrical goods cheerful and stimulating to the imagination let the display suggest what one would see if the same goods were in use in a home. The illustration shows how lamps and table appliances have been arranged to carry out this idea in the Olneyville Electric Shop of the Naragansett Electric Light Company at Providence, R. I. This neat and orderly display is an asset to any store.

When You Work for a Man

I believe that a man who works for another would give a much higher grade of service to his employer if he understood a few fundamental principles.

Your employer is in business to make a profit. Unless he makes a profit he can't stay in business. Keep this uppermost in mind at all times.

Your wages are paid, not by your employer, but by your customers. Your employer simply stands between you and the customers. You always try to put on a good front when your employer is watching you—be just as alert to please the customers.

It costs your employer a lot more than he pays you in wages, just to have you around. He has to pay rent for the space you occupy and he has to provide light, heat, furniture, wash rooms, pencils, pens, typewriters, machinery etc. Out of your services he has to get enough to pay your salary first, and then he has to pay a host of other bills for things you never stop to think about. Not until he has met all his expenses can he receive his profit.

If you loaf one hour a day, your employer's profit on your work goes glimmering. When he fixes his prices he figures that you will do as much work as you can in as short a time as you can. If you loaf when you ought to be working you are robbing him just as surely as if you took money from his safe. What is equally true, you are robbing yourself, though you may not realize it.

Your employer doesn't expect you to spend more than a proper proportion of your wages on clothes, but if you hold a job which brings you into contact with customers he has a right to expect that your appearance be in harmony with the standards of the house. Neat and trim clothes are far more desirable than showy clothes.

Loafing That Loses Profits

The biggest asset your employer has is the good-will of his customers. Each satisfied customer represents real money to him. He is eager to please them, to see that their wants are promptly taken care of, to handle any complaints or adjustments quickly He relies on you, as his representative, to do as he would do.

Of course, you only sell eight or nine hours of your time to your employer. The rest of the day is yours to do with as you please. But the man who hires you has a right to expect that you will give him your highest efficiency during the hours you are with him. You cannot do this if you have had only four hours of sleep the night before, or if you manage your personal affairs so badly that you bring a lot of worries to your place of employment. Lead a wholesome, natural life, in justice to yourself and your job.

You Get the Larger Profit

Finally, get it clearly in your mind that your employer is not the only one who makes a profit out of your work. You get a profit yourself—the larger profit. Any job well done fits you the better for the next job. You are not paid wages when you go to school. You pay for the privilege of being taught knowledge and discipline. The training your employer gives you is in many respects more valuable than that which you gain in school. If you are diligent you can capitalize the experience thus gained just as you cash in on your school education.

Life and business are like an account at the bank. You can't take out more than you put in.—WILLIAM FEATHER, in *Leslie's*.

Hints for the Contractor

Ideas on Estimating, Stock Keeping, Shop and Construction Methods, Repairs and Maintenance, and Collections

"Go-After-It" Methods That Created Appliance and Wiring Sales

BY R. NEWBECKER

To increase his business the dealer or contractor must first know who the prospects are that can be looked to for future sales of electrical appliances. The answer is to find out what homes are already supplied with certain of these accessories and which as yet have none. Persistence in this detail by the progressive dealer or contractor has more than once resulted in an increased number of sales for appliances, for which it was thought no demand existed in certain localities.

One instance in this respect is that of the progressive dealer who, using his local telephone directory, patiently called up every home listed to determine who were without electric irons, electric toasters and electrical washing machines, and what kind others of their friends had.

Of course tact and diplomacy are required in a survey of this kind. Each party called was greeted courteously and asked, "Is your electrical iron, toaster or washing machine in good condition?" The answer generally revealed whether or not any of these appliances were in use at the present time, and thus paved the way for obtaining additional information which finally resulted in a sale of one or more of the appliances carried by the retail dealer.

The Wireman Who "Went Out and Sold"

Another example in this respect was the repairman who found that he was putting in most of his time tinkering on jobs on which there was little or no income or profit for the dealer. Realizing that this state of affairs could not continue for long, he suggested to his employer as a method of keeping his job safe that he be permitted to call on the store's customers and others with electrical wiring for extensions or improvements. The result was that his first day's work resulted in the repairing of several electrical irons, the installation of several base plugs, some minor extensions, bulbs, etc., resulting in fully $95 worth of business. But best of all, this repairman dug up several prospects for washing machines, of which three were sold within one week's time.

By presenting credentials from his employer, representing that he wanted to look over the equipment with a free service of advice as to obtaining the greatest possible results from the electrical wiring installed, he was enabled to gain entrance to the greater majority of places, the housewife or maid in every case keeping close at hand, probably for safety's sake. In this way it was easily learned what electrical equipment already was at hand and the possibility of some additional requirements.

Of course it is out of the question for every contractor or dealer to send a repairman in search of business, and it is not always possible to secure a repairman with real selling instinct. However, where the opportunity presents itself and the combination does exist, there is found a new avenue for getting the line on new prospects, as well as old customers in reviving their interest in the merchandise the electrical retail dealer carries.

THE days when the lamps on a circuit could be counted and rated, have long since passed away. We have "convenience outlets"—usually rated at 40 watts each—although we have no means of knowing whether any one of them will be used to supply a 100-watt stand-lamp or a 500-watt iron. We have ceiling outlets, each of which may carry a fixture having one to six sockets, any one of which may have connected to it a 500-watt heater.

Only the householder knows what he does — the inspector and the contractor can only guess. But if the householder uses too much energy at one time, *the fuse tells the tale.*

Since, then, the number of outlets and the number of appliances connected to a circuit give only a speculative value of the energy being consumed, why not drop the guesswork and depend upon the fuse?

Street Lighting Is a Profitable Job for the Contractor

Some near-philosopher once remarked that he had more respect for the moon than for the sun, since the moon got busy and tried to supply light to the world when it needed it—after dark. It's unfortunate, perhaps, that the moon conforms to an irregular schedule that makes his effectiveness vary over a range from zero illumination up to the dim, bluish glow that sends poets to their typewriters and young men to jewelry stores.

But for the electrical contractor this condition is not so unfortunate after all. For the contractor has it in his power to supply his city or town with an after sunset illumination that will shed its protective, business-stimulating radiance as long as the juice is on. It is independent of tides or clouds or calendars. And it pays the electrical contractor to get thoroughly interested in the street lighting situation in his town.

Good electric street lights stimulate business, enhance real estate values, lessen crime and decrease traffic accidents. As a citizen the contractor owes it to his town to help along the cause of street lighting. As a business man, he must have a keen interest in the possibility for profit in the sale and installation of street lighting fixtures.

Wherever modern street lighting systems have been installed, the electrical contractor has benefited. A new impetus has always been given to store and residence lighting in the vicinity.

It has been found that raising the street lighting standards of a town by installing modern ornamental lighting posts creates a demand for lights to beautify bridges and buildings.

A Base Conduit Installation that Simplifies Future Wiring

A combination metal-base electric conduit for both lighting wires and telephone circuits, which is in itself a continuous electric outlet box, is being manufactured by the Dahlstrom Metallic Door Company, Johnstown, N. Y. As a wall base it is finished to harmonize with wood, marble or metal, and is provided with a natural bronze mop mold to prevent rubbing off of the finish when the floors are cleaned. As an electric device it provides two large concealed raceways for high and low-tension wires, accessible by the removal of the base front.

It is designed so as to make it possible to place electric receptacles and low-tension current outlets along any point of the base at any time desired.

By installing "Conduo-Base," as this device is called, and extending in the floor fill one low-tension wiring conduit from the main driving shaft and ½-in. conduit from the wall switch box to the base, any number of high and low-tension wires can be extended at any time in the race-ways.

New York Fixture Men Issue Chart of Suggested Outlet Box Arrangements

BY R. C. HEATHER

The lighting-fixture manufacturers of New York City having long been hampered by not being able to furnish certain types of lighting fixtures selected and desired, owing to the wrong type of outlet box having been installed by the electrical contractor, recently completed a chart of outlets for distribution among architects, electrical engineers and contractors.

In the letters to the architects, accompanying these charts, we suggest that the reading matter given in detail directly above the cuts, be embodied in the specifications drawn by them for the electrical contractor.

In a similar letter sent to the electrical engineers, we ask their cooperation in abiding by our suggestions laid down in this chart and in our letter to the electrical contractors, we ask their co-operation and at the same time request them to use the outlet boxes and covers we recommend on such work that does not come to them through architects, but is obtained direct from the owner of the building. We tell the electrical contractor that they could hang more fixtures themselves if the proper outlet boxes were installed, it being necessary under present conditions for special fixture hangers to do this work owing to the fact that unusual conditions are found on the job.

—1922—
STANDARDIZED LIGHTING FIXTURE OUTLETS
PREPARED BY THE NEW YORK DIVISION OF THE
NATIONAL COUNCIL LIGHTING FIXTURE MANUFACTURERS
FOR THE USE OF ARCHITECTS, ENGINEERS AND ELECTRICAL CONTRACTORS
WITH THE SOLE PURPOSE OF PERMITTING THE INSTALLATION OF BETTER FIXTURES ON SAFE OUTLETS
We suggest that these requirements be incorporated in the specifications for the Electrical Contractor, particularly for Residences, Hotels and Apartment Buildings, etc.
Fixture Outlet Boxes
ALL FIXTURE STUDS TO BE RIGIDLY ATTACHED TO OUTLET BOXES BY FOUR BOLTS
ALL BOX COVERS TO BE RIGIDLY ATTACHED TO OUTLET BOXES BY TWO ⅛ MACHINE SCREWS
TYPE A OUTLET
UNIVERSAL NUMBER 50151 MADE BY
Adapti Mfg. Co.
Appleton Electric Co.
Chicago Fuse Mfg. Co.
Michigan Stamping Co.
National Metal Moulding Co
Sprague Electric Works
Steel City Electric Co.
The Pratt Chuck Co.
Thomas & Betts Co.
FACE OF WALL
PLASTER WALL
FRONT VIEW
SECTION
Recommended for ordinary fixture work and especially convenient for all types of inexpensive one-light receptacles in walls or ceilings of closets and service departments.
DEEP BOX WITHOUT COVER FOR UTILITARIAN WORK
Outlets of this type are NOT suitable for modern fixtures, and therefore should not be used.
NOT THIS!
TYPE N.G. OUTLET
NOT RECOMMENDED
Known as shallow type flexible armored cable box. Made in various styles, in cast iron and in stamped steel.
NOTE—Condition illustrated above showing that this box is not capable of housing the spliced joints of wires and requires deep and objectionable canopies on fixtures. Shallow and oval backplates cannot be used.
TYPE B OUTLET
UNIVERSAL NUMBER 50151 MADE BY
Adapti Mfg. Co.
Appleton Electric Co.
Chicago Fuse Mfg. Co.
Michigan Stamping Co.
National Metal Moulding Co
Sprague Electric Works
Steel City Electric Co.
The Pratt Chuck Co.
Thomas & Betts Co.
Recommended for ordinary fixture work when Type A outlet is not large enough to accommodate a large number of wires or when hanger for heavy fixture will be used. D. & T. lugs accommodate inexpensive one-light service receptacles.
DEEP BOX WITHOUT COVER FOR UTILITARIAN WORK
TYPE C OUTLET
UNIVERSAL NUMBERS BOX 51151, COVER 52-C-3
Made by
Adapti Mfg. Co.
Appleton Electric Co.
Chicago Fuse Mfg. Co.
Michigan Stamping Co.
National Metal Moulding Co.
Sprague Electric Works
Steel City Electric Co.
The Pratt Chuck Co.
Thomas & Betts Co.
Recommended for all ordinary fixture outlets. Ample space in box for gas pipe or several conduits. Receptacles can be attached to cover.
TYPE D OUTLET
CONSISTS OF "NEW ERA" COVER WHICH FITS ON UNIVERSAL BOXES NUMBERS 51151 & 50151
Boxes made by all manufacturers. "NEW ERA" covers are distributed by R. B. Covey & Co., New York, N. Y.
NEW ERA COVER
Recommended for bracket outlets particularly in rooms where architectural style will be a consideration. Accommodates very flat or narrow backplates on period fixtures.
TYPE E OUTLET
UNIVERSAL NUMBERS BOX 51151, COVER 52-C-57
Made by
Adapti Mfg. Co.
Appleton Electric Co.
Chicago Fuse Mfg. Co.
Michigan Stamping Co.
National Metal Moulding Co.
Sprague Electric Works
Steel City Electric Co.
The Pratt Chuck Co.
Thomas & Betts Co.
Cover made by the Pratt Chuck Co. and Thomas & Betts Co. only.
Recommended for bracket outlets only in rooms where architectural style will be a consideration. Accommodates brackets less than 1½" in width.
Select covers according to size of fixture backplate to be used. Shaded area on each cover indicates portion covered by finished plaster or trim.
—SCALE ½ OF FULL SIZE—
MODERN CONDITIONS DEMAND IMPROVED SPECIFICATIONS IN THE INTEREST OF ECONOMY AND BETTER RESULTS

"We have tried to impress upon the architects that the shallow-type flexible armored-cable box which has been used so freely is the type of box which has caused so much trouble for the manufacturers of electrical fixtures," explains Mr. Heather in commenting on this chart. "This shallow box and the usual condition existing on a job are illustrated in the center of the chart, reproduced in red to attract attention. The conditions illustrated are by no means exaggerated. Very seldom do electricians even set these boxes flush. Invariably there are two sets of wires coming out of the boxes and sometimes three and four. How is it possible then, to hang a fixture with a shallow backplate on such an outlet. There is no room whatever in which to place the wires after splices are made, as the box is so shallow it does not permit the wires being placed inside." Outlets of this type are not suitable for modern fixtures.

Boxes and Conduit Fittings

In a thirty-two page catalog recently issued by the Rattan Manufacturing Company, New Haven, Conn., various members of its line of conduit fittings are described and illustrated. Particular advantages of the malleable iron "squeeze connectors" are set forth and the several types are listed with weights and prices per hundred.

Are You Having a Company Dinner? Here's How!

The members of the office and field staff of the Society for Electrical Development proved themselves to be good co-operators when they staged a most successful "get-together" dinner recently at the Hotel Lafayette in New York.

"The Electrical Rampage and Social Shock," as the affair was called, was attended by more than thirty members of the society's staff and their wives.

O. C. Small of the publicity department acted as "Electric Toast Master" and kept things moving with celerity.

While "shop talk" was barred at the dinner, the staff of the S.E.D. feel so elated over the success of their undertaking that they will be glad to give pointers on "How to Put On a Successful Company Entertainment" to any member contemplating such a builder of esprit de corps.

225 Miles By Radio,—370 Miles Back By Parcel Post

It is not often that a man's voice is returned by parcel post, but such was the unusual experience of H. W. Arlin, announcer at KDKA, the East Pittsburgh radio telephone broadcasting station of the Westinghouse Company.

On April 5, Mr. Arlin was on duty at KDKA and, in addition to announcing the musical program, gave out the news and talks on his schedule. The same evening W. E. Weaver, of Hespeler, Ontario, 225 miles north of East Pittsburgh, Pa., was listening in on his radio receiver. Struck by a happy thought, he wheeled a dictaphone in front of his loud speaker and registered part of the concert on the record.

This record he sent to the radio department with an invitation to listen to it and see how KDKA is received in Ontario. It is unnecessary to say that everybody connected with the radio division at various times put the headpiece over their ears to hear the "canned wireless."

Mr. Arlin was perhaps one of the most interested listeners, for in addition to hearing the music sent out April 5, his voice registered accurately and clearly each announcement.

"Principles of Radio Communication"

"Knowledge is power," goes the old adage. Today, to the electrical dealer who sells radio outfits and supplies, radio knowledge is the power to give intelligent service to both the layman who wants to buy a radio set but doesn't know an amplifier from an antenna, and the "radio bug" who punctuates his remarks with casual references to "frequency," "inductance," "capacity" and other terms dear to the heart of the radio fan. The electrical dealer must have radio knowledge to give real service and he must give real service to make any real success at the radio game.

Electrical dealers who are handling radio apparatus and feel the lack of a thorough understanding of radio fundamentals will be interested in a new book called "Principles of Radio Communication" written by J. H. Morecroft, assisted by A. Pinto and W. A. Curry, and now published by John Wiley & Sons, 432 Fourth Avenue, New York City. The book deals with all phases of the radio art. The fundamental laws and ideas of radio are discussed and chapters are devoted to resistance, inductance and capacity; oscillating circuits; spark telegraphy; vacuum tubes; continuous-wave telegraphy; radio telephony; antennae and radiation; wavemeters; amplifiers and all the other phases of radio theory and operation.

Frederick W. Prince has joined the publicity staff of the Western Electric Company at 195 Broadway, New York City. Mr. Prince was formerly associated with the Hartford Electric Light Company, where he served as superintendent in the construction department and later as manager of the lighting department in charge of commercial relations with the public. In 1917 Mr. Prince resigned to become commercial engineer with the Franklin Electric Manufacturing Company, and in the fall of 1919 was appointed advertising manager of the Westinghouse Lamp Company, which position he held until his recent connection with the Western Electric Company.

American Construction Council of Building Industry

Representatives of all elements of the construction industry except labor and the construction departments of public utilities met in Cleveland April 28 and 29 and drafted a set of by-laws under which it is intended to form a federation of conference board representative of the entire construction industry and "dedicated to the improvement of the service which the construction industry renders to communities, states and nation." The name proposed for the organization is the American Construction Council.

The representatives as appointed will, through a steering committee composed of the secretaries of the Federated American Engineering Societies, the American Institute of Architects, the Building Trades Department of the American Federation of Labor, the Associated General Contractors, the National Federation of Construction Industries, and the National Lumber Manufacturers Association, endeavor to secure the adherence of as many as possible of the 250 associations in the construction industry and their participation through authorized delegates in the organizing meeting to be held some time after June 19. The place of that meeting has not been determined.

E. J. Russell, St. Louis architect, acted as chairman of the meeting and W. S. Hays, of Philadelphia, was secretary.

Baseboard outlets bring vacuum cleaner sales—QUALITY ELECTRICAL WORK!

Record of Lighting Fixture Patents

Issued from April 4 to April 25, 1922

COMPILED BY NORMAN MACBETH
Consulting Illuminating Engineer, New York City

Design Patents

The following are ALL the Design Patents pertaining to lighting materials issued by the U. S. Patent Office, from April 4 to April 25, 1922:

60,847. Surface Ornamentation for a Ceiling Plate or Similar Article. Jay B. Beel, Chicago, Ill., assignor to Beardslee Chandelier Manufacturing Co., Chicago, Ill. Filed Dec. 11, 1920. Issued April 18, 1922. Term of Patent, seven years.

60,864. Combined Lamp and Talking-Machine Casing. Joseph Harasym, Chicago, Ill. Filed July 18, 1921. Issued April 18, 1922. Term of patent, fourteen years.

60,873. Shower Pan for Lighting Fixtures. Paul Mohrmann, Chicago, Ill., assignor to Friedley Voshardt Company, Chicago, Ill. Filed July 30, 1921. Issued April 18, 1922. Term of patent, seven years.

60,875. Lighting Fixture. Theodore J. Nelson, Chicago, Ill. Filed July 30, 1921. Issued April 18, 1922. Term of patent, fourteen years.

60,895. Portable Lamp. Frank S. Crowell, Toledo, Ohio, assignor to The Edward N. Riddle Company, Toledo, Ohio. Filed Jan. 22, 1921. Issued April 25, 1922. Term of patent, seven years.

60,896-904. Electric Fxture and Parts. Thure E. Dahl, New York, N. Y. Filed May 31, 1921. Issued April 25, 1922. Term of patent, three and one-half years.

60,907. Lamp. Sidney M. Israel, Richmond Hill, N. Y. Filed Aug. 1, 1921. Issued April 25, 1922. Term of patent, three and one-half years.

60,921-22. Lighting Fixture. Harry Shardlow, Los Angeles, Cal., assignor to Solar Illuminating Company, Chicago, Ill. Filed Aug. 12, 1921. Issued April 25, 1922. Term of patent, three and one-half years.

Mechanical Patents

1,412,036. Portable Lamp. Wm. T. Barnum, Chicago, Ill. Filed March 21, 1921. Issued April 11, 1922.

1,412,127. Coupling for Portable Electric Lamps. Hynek Maras, Woodside, N. Y., assignor to Renner & Maras, Long Island City, N. Y. Filed Dec. 9, 1920. Issued April 11, 1922.

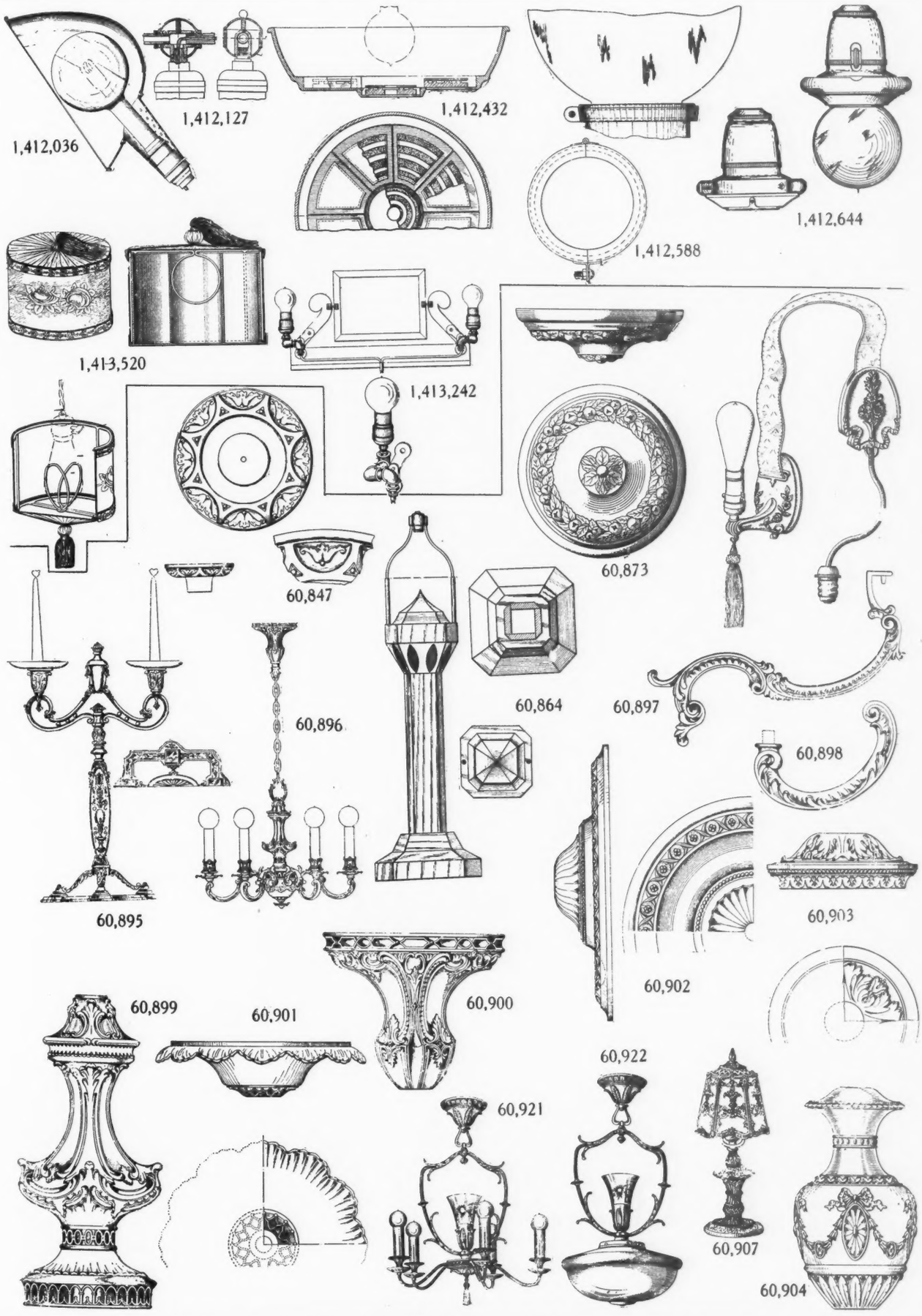
1,412,432. Light-Diffusing Medium. Vincent Walsh, New York, N. Y. Filed July 9, 1920. Issued April 11, 1922.

1,412,588. Globe Retainer. George Woodliff, Jr., and Julius N. May, Chicago, Ill. Filed May 22, 1920. Issued April 11, 1922.

1,412,644. Combined Socket-Cover and Lamp-Ring Light Fixture. Robert Sayer Aspinwall, Dctroit, Mich. Filed March 30, 1921. Issued April 11, 1922.

1,413,242. Lighting Fixture. Clifford S. Thomas, Gorham, Me. Filed Aug. 28, 1920. Issued April 18, 1922.

1,413,520. Lamp Shade. Virginia Winn Darling, Yonkers, N. Y. Filed Nov. 27, 1920. Issued April 18, 1922.



Copies of illustrations and specifications for patents may be obtained from the Commissioner of Patents, Washington, D. C., for 10 cents each

New Merchandise to Sell and Where to Buy It

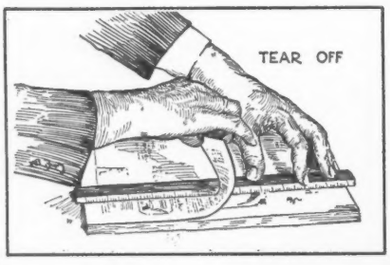
Appliances, Socket Devices and Wiring Supplies Which Manufacturers and Jobbers Are Putting on the Market

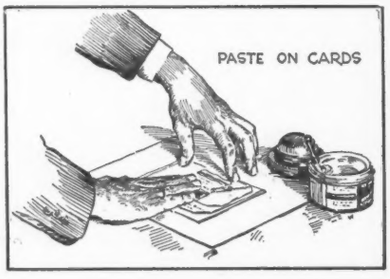
Including Many New Appliances for the Home Electrical

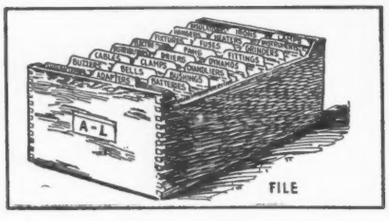
How to Use These Pages to Make Your Own Buying Index

Beginning with the September, 1917, number ELECTRICAL MERCHANDISING has been furnishing its readers with the selective new-merchandise catalog service continued on these pages. By tearing out those items which affect your business and pasting them on filing cards, you can make a buying index that will put information on *what is made and who makes it* right at your finger's end.

Every item, with its illustration, will fit a standard 3-in. by 5-in. filing card. Or, if preferred, these items can be pasted on sheets of paper for binding in a loose-leaf catalog or folder.







This section "New Merchandise to Sell" is an editorial text section prepared by the editors solely in the interests of readers of ELECTRICAL MERCHANDISING. As is title explains, its purpose is to put before our readers information concerning the new merchandise and latest inventions on the market.

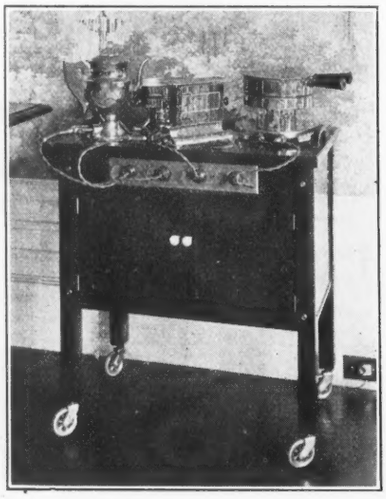
To be described here, articles or devices must be new and of general interest to our readers. These descriptions are solicited from all manufacturers, and the items are published free of all cost to the maker of the device, and without respect to advertising or any other consideration, except their interest to the reader. The editors are the sole judges of what shall appear in this section, and readers may depend upon the independent character of this service.

Electrically Equipped Furniture as a Commercial Product

Electrical Merchandising, June, 1922

With furniture manufacturers today actually making and cataloguing electrically equipped furniture, "wired furniture" is decidedly more than a theory today—it is an accomplished fact. Already electrically-equipped vanity tables, desks and tea wagons are being produced on a large scale for distribution through the regular furniture channels and through electrical dealers.

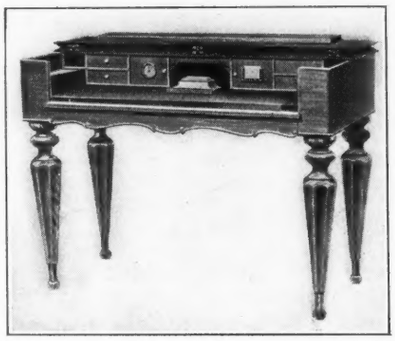
The spinet desk shown in the illustration is electrically equipped for a desk light, and is made by the William F. Drueke Company, Grand Rapids, Mich. Also, one thousand of the vanity tables illustrated have been manufactured and regularly catalogued for sale by the Wallace Manufacturing Company, also of Grand Rapids. And the Nichols Electric Furniture Company, Bennington, Vt., is offering the "Lady Maid" tea wagon, completely wired with four outlets for percolator, toaster, waffle iron and lamp. This company was a pioneer in the development of wired furniture, having made its first electrical tea



wagon in 1914. It is now offering a new model.

Such are the most striking results of the first year's work of the Electrically Equipped Furniture Committee, Commercial National Section, National Electric Light Association. In the annual report, presented at the Atlantic City convention, the committee lists the major developments and important steps of the past twelve months in spreading the idea, as follows: The electrified furniture exhibit at the 1921 New York Electric Show, by the United Electric Light & Power Company; the subsequent exhibit of wired furniture to several hundred furniture dealers at the Furniture Exposition in the New York Furniture Exchange; and the featuring of wired tea wagons and dining tables in demonstration Homes Electric throughout the country.

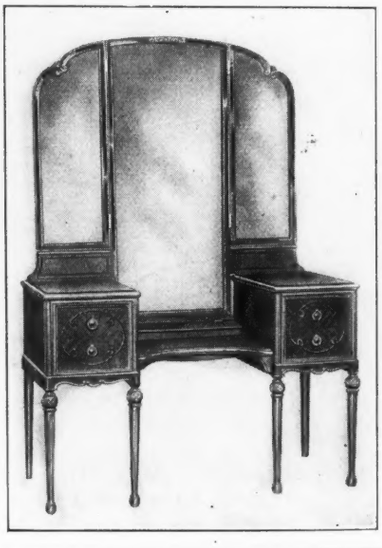
"The electrically Equipped Furniture Committee," reads the report in part,



"believes that the spontaneous interest shown by the public and the furniture trade in response to its initial efforts is indicative of the possibilities in this field that await developing by the electrical industry.

"There is no branch of the industry that will not be benefited when the popularity of wired furniture assumes increased proportions. The central station will sell more current with convenience outlets, in number made convenient to use. The manufacturers of wire, fittings, fixtures, lamps, appliances and a multitude of other necessities, will increase their fields for sale. The electrical contractor-dealers, too, will find that more baseboard receptacles will be required in the new homes that are being built and in the old ones that lack the necessary sources of supply. The committee feels that electrically equipped furniture will give additional stimulus to the nation-wide movement for more outlets."

The members of the committee are: J. F. Becker, chairman; Ralph Neumuller, secretary; O. H. Caldwell, S. A. Chase, F. C. DeReamer, C. H. Griffith, R. S. Hale, Chris. Litscher, H. H. Muller, Dana Pierce, L. L. Strauss, and E. Cantelo White.



Double-Slot Convenience Outlet

Electrical Merchandising, June, 1922

Two new flush receptacles provided with the double "T" slots have been placed on the market by the Arrow Electric Company, Hartford, Conn. The single type is listed as No. 8,219, the duplex type, No. 8,212. They are made of composition, have a polished face without any screw holes, and restricted openings. The receptacle is 1 in. deep and can be used in confined space with ample room for wiring.

Socket Condenser Designed to Utilize Light Wires as Radio Aerial

Electrical Merchandising, June, 1922

A device designed to make use of electric light wires as receiving aerials for radio sets is being distributed by the Dubilier Condenser and Radio Corporation, 217 Center Street, New York. Fitted with an Edison base plug, the "Ducon" condenser is screwed into a lamp socket and connected with the antenna terminal of the radio set.

In connection with antennas already installed, the manufacturer explains that the device will amplify the sound considerably. High protective properties are also claimed for the device, which is designed to make lightning arrestors unnecessary. Each condenser, according to the manufacturer is tested to withstand a breakdown voltage of 3,000.

All-Metal Outlet Base

Electrical Merchandising, June, 1922

To supply an all-metal base for every conceivable form of concealed outlets—old work, loom plates, ceiling plates, boxes for metallic and non-metallic flexible conduit—Pass & Seymour, Inc., Solvay, N. Y., announce their new "BR" base. This base is designed to cover all outlets, and when combined with the various bodies, makes a full line of wiring devices. The standard finish used is brush brass.

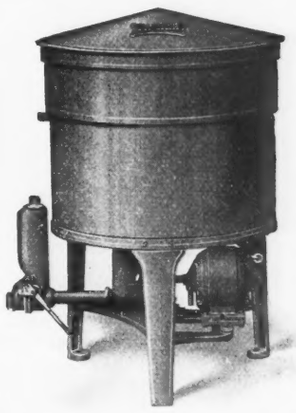
The bridge inside is a full inch above the skirt, so that this base will therefore cover any projection such as pipe-ends or studs that extend one inch from the wall or ceiling surface. A complete series of adapters has been developed to secure this base to all forms of outlets.

"The Dance of the Million Fireflies"—A Lighting Novelty for the Ballroom

Electrical Merchandising, June, 1922

They used to drop flowers, or confetti, on a swaying throng of dancers—today, lighting is the means most used to gain the novel and beautiful effects that delight the fancy of the merry-makers.

The newest novelty is one that will change a hall into a brilliant fairyland of flashing, changing, living colors—a place of a million colored sparks, darting and dancing, chasing one another into every nook and corner—filling the hall with dancing fireflies of a thousand hues. The effect is produced by means of a "Myriad Reflector," a globe covered with more than a thousand tiny mirrors, suspended from the ceiling. Slowly rotating, it catches the light from spot lights thrown on it, sending it back in dazzling sparks that leap to every corner of the room in a thousand colors.



The globe is rotated by a small, motor-driven mechanism operated from an ordinary light socket. Color slides on the spot lights produce the varicolored effect on the reflecting mirrors. Stephens & Woeste, 22 Opera Place, Cincinnati, are the originators and distributers of this novelty, which was a feature of the recent Milwaukee fixture convention banquet, and which is expected to find a new field this summer in the seasonal dances and festivals.

Electric Dishwasher

Electrical Merchandising, June, 1922

A feature of the new "Sterling" electric dishwasher recently placed on the market is the plan of having four spray arms revolve about the baskets, driving the water on the dishes from the top, bottom and from the sides.

The dishes remain stationary and are arranged in two baskets. Moreover, the water is being constantly screened and refuse eliminated as it passes to the pump and is thrown back on the dishes.

Some points in its construction are: heavy copper tank, tinned inside; Westinghouse motor; floor space, 25 x 25 in.; white enamel finish. The machine is designed for larger residences, hotels, restaurants, diet kitchens, schools, boarding houses, etc. It is made by Josiah Anstice & Company, Inc., Rochester, N. Y.

Table Lamp Combining Direct and Indirect Lighting

Electrical Merchandising, June, 1922

For those who prefer a soft illumination throughout the room with stronger light only for reading and the work table, a table lamp that reflects most of its light upward and some of its light down is the ideal solution.

With the new table lamps offered by the Duplex Lighting Works, 6 West Forty-eighth Street, New York City, an inverted glass bowl within the shade is used as a reflector, throwing enough light upward to illuminate the room softly and sending light downward in a wide radius, approximating 15 candlepower intensity. The graceful standard is finished in antique gilt, and the same shades that were designed for the "Duplexalite" ceiling fixture are used.

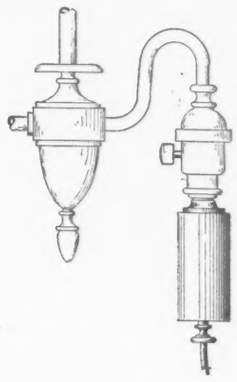
Floor lamps patterned after the same design as the table lamps are also being made by this company.

Antenna Plug That Makes Aerial of House Wires

Electrical Merchandising, June, 1922

With an aerial made simply by plugging a small condenser into a light socket, the radio fan need no longer worry about an outside aerial or lightning arrester or static. The plug and the house wires then become a complete aerial.

Such an antenna plug—called the "Protex"—is being made by the General Radio Manufacturing Company, East Liberty, Pittsburgh, Pa. The plug is inserted into the light socket and the lead taken to the radio set. This makes the antenna.



Continued on third and fourth pages following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card.

Sales Helps for the Dealer

Show Window, Counter, Mail Advertising and Specialty Aids Which Manufacturers Offer to Help You Get More Trade

"Building Housewiring Business"—A New S. E. D. Booklet

With the publication of "Building Housewiring Business," a monograph giving practical and profit-making suggestions for obtaining more business in the wiring of residences, the Society for Electrical Development, 522 Fifth Avenue, New York City, has supplied the industry with a timely and helpful text book.

"Building Housewiring Business" is really in two parts. The first booklet tells the "how" and the "why," gives concrete suggestions, outlines complete campaign plans and tells what steps should be taken by a contractor-dealer or other interested person who wishes to increase his housewiring business.

The second part, which is separately bound, contains the "Sales Helps." In this section are illustrated the advertising suggestions, the lantern slides, sales letters and folders which the Society can supply. A number of ideas are also given for window displays.

Among the advertising and selling aids which the S.E.D. has produced to aid in promoting the idea of adequate wiring, is a little pamphlet called "Why is an Outlet?" This is an envelope enclosure, inexpensively but attractively printed in colors, which presents convincing arguments for the inclusion of "Convenience Outlets" in abundance in every wired home. "Why is an Outlet" may be purchased in quantities from the Society at nominal prices.

Following closely the publication of "Building Housewiring Business," a second monograph, giving comprehensive information about the best plans of time payment financing, has been issued by the S.E.D. Under the title, "Partial Payment Plans" the Society has contributed a mass of helpful information which heretofore was obtainable only from many different and scattered sources.

The P. A. Geier Company, Cleveland, Ohio, is distributing a new folder on the profitableness of the Royal electric hair cutter for the shop of the progressive barber.

To Lighten the Labor of the Lighting Fixture Man

Having in mind the value of labor-saving as an argument for the dealer in selling lighting fixtures as well as any other convenience for the home, the Service Electric Manufacturing & Supply Company of Boston is sending out literature showing the use of its "Turntite No-Screw" canopies, of which the above demonstration picture is typical. The device is said to eliminate the "losing the screw" fault and extra work of putting up canopies of the screw type. John J. Donovan, treasurer of the company, is here shown watching a pupil put up a canopy.

A Newspaper's "Home Electrical" Exhibit

The Household Economics Department of the Los Angeles Express occupies a whole floor of the Express building, and has displays of interest to housewives, grouped in allotted spaces, back of the lecture auditorium. Latest kitchen equipment, groceries, furniture in model rooms, and electrical appliances are displayed artistically, and viewed by thousands.

The electric display occupies several compartments, whose entrances are alike, having a neat sign between two high posts which reads, "Do it electrically—and do it more effectively—and more comfortably." Chairs and table provide comfort for an interested person to study the literature pertaining to the electric appliances. Flowers and palms add to the brightness of the rooms.

The electrical equipment is demonstrated by Mrs. Vaughn at various times in her cooking and general household lectures, and is well advertised by her special pages on household affairs.

Soaps, Cleansers and the Washing Machine User

While the advent of the electric clothes washer has by no means changed the fundamental rules that any good laundress followed in the use of soaps, sodas, and washing agents, it has given these accessories an importance which they did not have before. Women are giving more thought to them than they used to—especially those possessing washing machines, because they can give best results only if good soaps and proper methods of preparing the water are used.

No washing machine will do its work well if hard water and poor washing agents are consistently used. It is important, therefore, that the electrical dealer not only familarize himself with the why and how of hard and soft water and washing agents, but that he pass on his knowledge to the woman who buys a machine and *carry in stock*

the washing agents he recommends.

An investigation recently conducted by Arthur P. Hirose, Director of ELECTRICAL MERCHANDISING'S Readers' Service Department, to determine what washing machine manufacturers themselves thought on the subject, brought to light two facts: A preponderance of opinion in favor of soap chips—bought in packages; and a marked lack of unanimity on the kind of soap best used.

Soap Chips in Packages

Soap chips bought in packages were generally favored by these manufacturers because they easily dissolve in water and mean least trouble to the housewife. Bar soap chipped or jellied by the housewife herself was reported as having the same advantages, but as taking more time and trouble.

As for the kinds of soaps best used—whether yellow or white, strong or mild—much nonsense has been written on both sides, and the electrical dealer would do well to read the Government pamphlet on home laundering, which contains much commonsense information on the composition of washing agents. The pamphlet is named "Home Laundering," Farmers' Bulletin 1,099, and may be obtained on application to the United States Department of Agriculture.

For one thing, it points out that both yellow or white soap may be used for laundering; that the rosin in the yellow soap, which causes the color, helps produce suds and is harmless as long as too much is not present. Too much rosin is detected by a pungent odor and a sticky quality.

A better classification of soaps, it shows, is as strong, medium and mild—mild soaps being best for general purposes. Strong soaps can be detected because the excess of soda in them makes the hands shrivel.

Issues Wireless Manual for the Amateur

Radio telegraphy and telephony from the amateur viewpoint has been thoroughly covered in a 207-page manual and catalog just issued by the Manhattan Electrical Supply Company, New York. General theory is made highly readable with practical descriptions and clear illustrations. Eighteen pages are devoted to circuit diagrams for sending and receiving set-ups, and itemized lists of units for several sets are included. In addition to much information of practical value to the amateur, the manual contains illustrations and prices on a wide variety of equipment and parts for the home radio station.

New Publications

The Cote Bros. Manufacturing Corporation, 1425 First National Bank Building, Chicago, has issued a folder entitled "Simplicity Fuses," describing the new refillable fuse of that name, which consists of only two parts and the tiny refill cartridge.

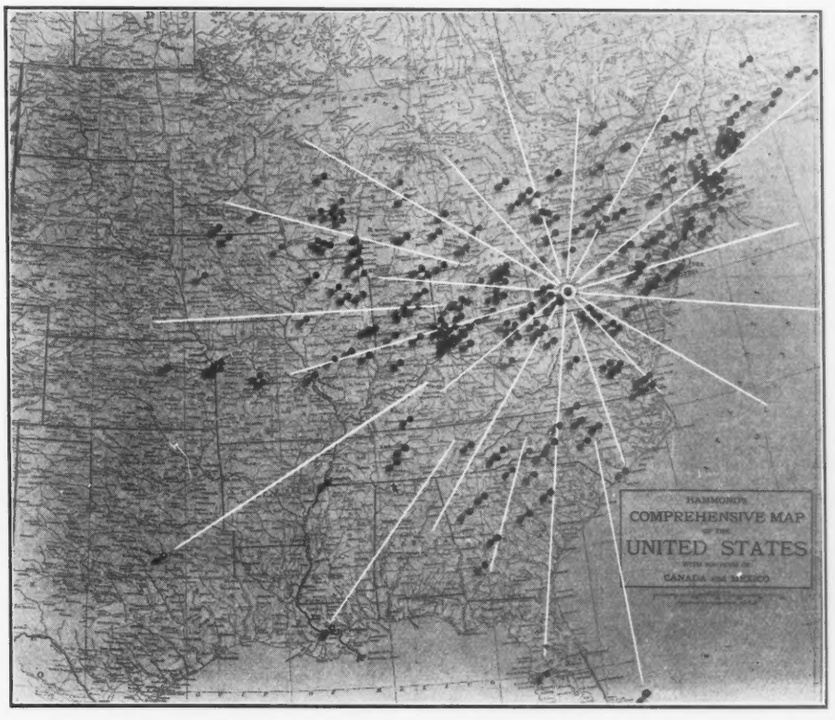
Kollins Kitchen Kraft, Monadnock Block, Chicago, is now issuing a monthly leaflet entitled "Kitchen Kraft," in which will appear "records of accomplishments and outlines of the methods employed by successful electrical dealers, new and practical suggestions for creating sales results, and replies to letters pertaining to the interests of dealers in electrical household appliances."

The Consolidated Lamp & Glass Company, Coraopolis, Pa., recently issued a handsome booklet, "Cora-Lites for Commercial Lighting." This catalog has twenty-four pages, with the "Cora-Lites" illustrated in full colors. It is in loose-leaf form, so that a page showing a single unit may be removed by a dealer and shown to his customer, thus avoiding the confusion sometimes caused by presenting a large number of glassware designs.

Becker Brothers, 25 North Jefferson Street, Chicago, have issued a new booklet showing prices and sizes of their line of carbon-graphite brushes for industrial use. Prices are also given on bronze and copper gauze and leader wire.

S. Robert Schwartz & Brother, 729 Broadway, New York City, have recently issued a new catalog covering the complete line of adjustable desk and floor lamps manufactured by them. This catalog indicates the various stages in the development of fine finishes for portable lamps and by means of suggestive pen-and-ink drawings shows the variety of uses to which the lamps may be put at the bedside, on the desk, at the piano, and so on.

"How Far Can I Receive with My Radio Set"?



Here's a map that answers one of the most frequently asked questions on radio: "How far can a broadcasting station be heard?" The central pin with the white ring represents the Westinghouse broadcasting station KDKA at Pittsburgh, Pa. Each of the other pins shows the location of a receiving set that has picked up KDKA's ether-projected entertainment, as reported in writing to the broadcasting station. Of course thousands of radio-ists have heard KDKA without ever reporting.

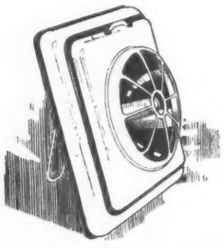
A list of the more distant points at which KDKA's programs have been heard shows that the concerts go out in a circle, having a radius of about 2,000 miles. This conclusion is based upon reports that have been received from such points as Edmonton, Alberta Providence, Canada; Centralia, Washington; San Francisco, California; Los Angeles, California; Tucson, Arizona; Tampico, Mexico; Puerta Cortes, Honduras; the Canal Zone, Panama; Venezuela; Santo Domingo; Porto Rico; Halifax, Nova Scotia, and from ships on the high seas.

Portable Household Heater

Electrical Merchandising, June, 1922

A radiant heater built into a frame that stands on the floor like an easel or can be hung on the wall like a picture, has been developed by the Reznor Manufacturing Company, 58 Main Street, Mercer, Pa. To put "heat where you want it," the heater is made so that it can be hung near the bedside, stood on a work table, or in fact placed wherever the maximum of heat distribution is developed.

The neat, square frame that contains the copper reflector is finished in white enamel, or it may be had in nickel, Japanese bronze, Butler silver, or burnished brass. Each heater is fitted with a 10-amp toggle switch, with only the finger control lever exposed. The voltage is 110; amperage, 6; wattage, 660.



Vacuum-Cup Clothes Washer

Electrical Merchandising, June, 1922

The amount of clothes put into the clothes washer in the average household usually varies from week to week. The Beebe Products Company, Minneapolis, Minn., has recognized this fact in placing on the market a vacuum-type clothes washer with a spring release which adjusts the vacuum cups to the amount of clothes in the washer. The cups are of aluminum and work alternately on the clothes.

The cast aluminum wringer, which is driven by a shaft from the main drive gears, is equipped with a safety release which, when thrown, releases the spring bolts on each side of the wringer. This stops both rolls and allows them to separate. All parts of the wringer maintain their regular positions when the release is operated. When the release lever is raised, the tension spring is again in position and the drive gears are engaged ready for work. The spiral springs adjust themselves to the load, eliminating the use of thumb screws.

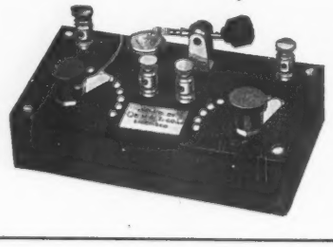
The motor is belt-connected.

Vest-Pocket Receiving Set

Electrical Merchandising, June, 1922

Many a dyed-in-the-wool radio fan with a permanent installation at home wants a set which he can carry wherever he goes—automobilists, hikers and campers find a new charm in the outdoors when they can "listen in" by the roadside. Invalids and convalescents, too, need a featherweight set to use while in bed.

So a vest-pocket receiving set, called the "Baby Grand," measuring only 3¾ in. long and 2⅝ in. wide, has been developed by the Beaver Machine & Tool Company, Inc., Newark, N. J. Compact as a camera, the instrument is complete in itself, and needs only a headset and a few feet of wire to hook up to a wire fence and ground.



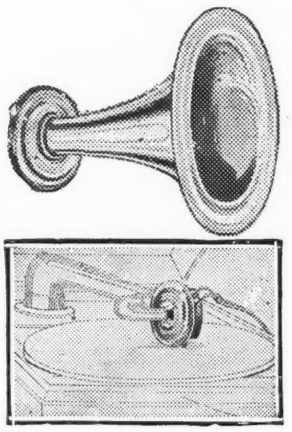
Radio Horn and Phonograph Attachment

Electrical Merchandising, June, 1922

Besides being adjustable to any ear phone by simply turning the three screws, the "Midget" radio horn offered by the Local Sales Company of New York, Inc., 12 East Forty-second Street, New York City, can be taken off and the attachment used on a phonograph.

The horn is in two parts, and if desired a hole can be made in the radio cabinet so that only the horn will protrude.

When the attachment (which is also sold separately) is to be used on the phonograph, all that is necessary is to remove the reproducer on the phonograph and replace it with the attachment.



Ceiling Receptacle

Electrical Merchandising, June, 1922

An electric ceiling receptacle 6½ in. in diameter, with an opening 2¼, 3¼ or 4 in., is being offered by the Liberty Machine Company, Wauwatosa, Wis. It is 3½ in. high, and is made of cast iron, finished in either black or green.

"Dolly Dimple" Lamp

Electrical Merchandising, June, 1922

"Dolly Dimple" in yellow bonnet and flowered dress with rose or blue trimmings, becomes the base for a novelty lamp offered by Ferdinand Bing & Company, 67 Irving Place, New York City. The lamp stands 17 in. high ,and is designed for the boudoir or the child's bedroom.

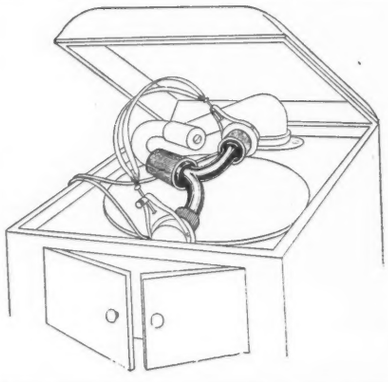
Electric Clothes Washer

Electrical Merchandising, June, 1922

In order that its washing machine might be adjusted to fit tubs of different heights, or otherwise for the convenience of the housewife, the Boss Washing Machine Company, Harris and Ash Streets, Cincinnati, Ohio, is making the machine with adjustable leg brackets. In this way it is possible to raise or lower the machine to any desired level or to adjust it to any unevenness in the floor.

The tub is made of cypress, because, according to the maker, this wood retains the heat with little radiation loss and is easily kept clean.

Other construction parts of the washer are: A ½ hp. General Electric motor; belt drive; and a detachable swinging wringer.



Phonograph Loud Speaker Connection

Electrical Merchandising, June, 1922

Any family with a phonograph can use it to get loud-speaking results from its radio receiving set with the aid of the new "Phonotach" loud speaker connection developed by William A. Mills, 103 Park Avenue, New York City. This device is intended to utilize the tone amplifier of the talking machine in gaining mellowness and beauty of tone.

All that is necessary is to remove the sound box from the phonograph and connect the large rubber connector of the loud speaker. The receivers are placed on each end of the "Phonotach" just as they would be adjusted to one's ears.

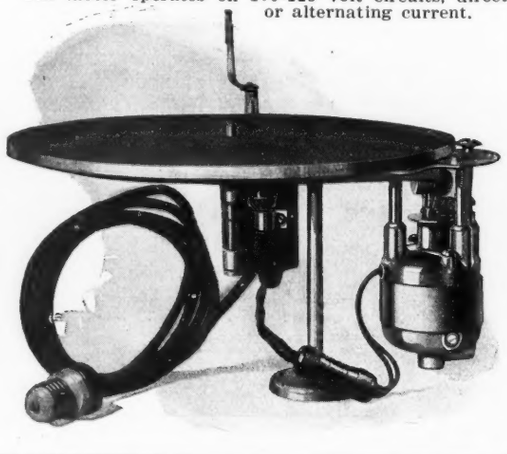
Electric Phonograph Motor

Electrical Merchandising, June, 1922

Any make of phonograph can be transformed into an electrical phonograph, and thus end all winding by hand, by the addition of the "Arnold" electric phonograph motor, made by the Arnold Electric Company, Racine, Wis. This motor simply replaces the spring motor in the ordinary phonograph, the change being accomplished either by removing the board that supports the old spring motor or by attaching the new motor to the old board.

For starting and stopping the machine, a switch is provided, and also an automatic stop device for stopping the motor at the end of the record. The speed, also, is regulated by a button, and, according to the maker, a variation of as much as 30 volts in the current voltage will not affect the turntable speed. The turntable is driven by a noiseless belt drive.

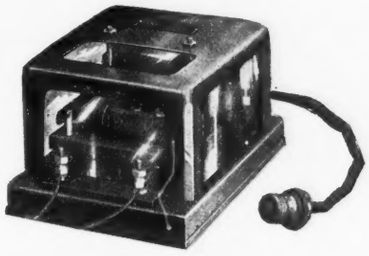
The motor operates on 100-125 volt circuits, direct or alternating current.



Radio Battery Charger

Electrical Merchandising, June, 1922

Especially designed for the radio operator, to whom a weak battery means weak signals and the dissatisfaction of occasionally missing an entertainment, is the "Type W" battery charger made by the Valley Electric Company, St. Louis, Mo.



This handy charger simply plugs in on the house lighting circuit like a lamp, and it is then merely a matter of clamping the charger clips over the battery terminals and turning on the current. Ordinarily eight to ten hours are sufficient to bring a weak battery up to a fully charged stage, but if the charger is left on a longer time, it cannot overcharge the battery or harm it.

It will charge a 6-volt battery at a 5-ampere rate, and is equipped with an indicator, extension cord and plug, and battery leads with strong battery terminal clamps. It can also be used to charge any 3-cell automobile battery.

Amplifying Horn

Electrical Merchandising, June, 1922

The F. C. Kent Company, of Irvington, N. J., manufacturer of a master adapter and various attachments and tone arms for phonographs, has announced as its newest product, the "Kentone" radio amplifying horn.

The horn is made entirely in brass and stands 15 in. high with a bell 16 in. in diameter. The base is arranged so as to accommodate the popular makes of radio receivers, and is so fashioned as to insure an airtight connection. A little slot is provided at the base through which the wires of the receiver are inserted and such wires are held in place by a patented clasp which also contains a loop to which the strings of the wires are tied so as to relieve the strain.

Filament Control for Radio

Electrical Merchandising, June, 1922

The "Bradleystat" filament control for adjusting radio vacuum tube filament current is made with graphite disks, assembled in a column in a porcelain container, whose resistance varies with the pressure applied to the column. It will be seen that the resistance depends only on the pressure on the column of disks, and since the pressure can be regulated to any desired degree, the voltage on the filament can be adjusted to the smallest fraction of a volt. A large adjusting knob permits precise control.

This device, which is made by the Allen-Bradley Company, Milwaukee, Wis., is designed for the control of the filament current in receiving or power tubes. It may be used universally with ¼ or 1 amp. detector or amplifier tubes, or with transmitting power tubes with ratings up to 2½ amp.

Electric Clock System

Electrical Merchandising, June, 1922

To bring electric clock systems within the means of homes and small institutions, Lockwood & Almquist, Inc., 220 East Forty-Second Street, New York City, have recenly put on the market a small-size self-winding chronometer master clock.

This clock has a jewelled movement, and rewinds once a minute, keeping a uniform tension on the main spring. The clock, set key, switches and sufficient battery to operate up to thiry secondary clocks, are contained in a case 14 x 10 x 4 in.

In addition to this master clock, the company furnishes with it secondary clocks, which operate on such a small amount of current that it is practical to use dry cells as the source of operating energy, instead of a storage battery. The clocks are especially designed for banks, schools, and small institutions.

Four-Light Ceiling Fixture

Electrical Merchandising, June, 1922

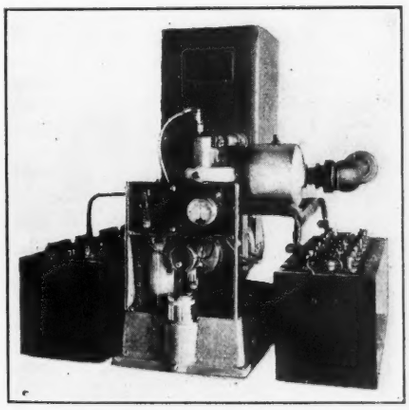
Decorative and yet designed to fit many types of living and dining rooms is the four-light ceiling fixture shown in the illustration, brought out by the Globe Lighting Fixture Manufacturing Company, 82 Bowery, New York City. The four globes are suspended from a central, ornamental, white metal ring, which in turn is suspended by four chains from one ornamental chain.

Automatic Electric Attachment for Fireless Cookers

Electrical Merchandising, June, 1922

One reason why the fireless cooker often stands unused is that it requires attention before the soapstone is heated or the oven brought to the proper temperature for cooking. With a new electrical device recently brought out, however, the housewife can put all her food into the unheated cooker and forget all about it—the automatic switch will turn off the current as soon as the cooking starts. The "Electric Maid" device is an attachment which will convert any fireless cooker into an automatic electric cook stove, and is made by the Hankscraft Company, 2317 Winnebago Street, Madison, Wis.

The complete outfit, which may easily be installed by the electrical dealer in his customers' fireless cookers, comprises: the imbedded-wire heating element, with cord, plug and socket; the automatic switch (which is screwed over the steam vent and shuts off the current as soon as steam comes out); rack for holding pots and pans; and kettle bottom.



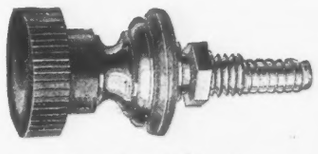
Farm Electric Plant for Lighting Only

Electrical Merchandising, June, 1922

Designed for lighting only, and to avoid any application of its battery to either heating or power, is the "Brevard" home electric plant developed by the Brevard Electric Corporation and distributed by the Anderson Sales Company, New Market Bank Building, St. Louis, Mo.

This engine contains only four moving parts—there are no valves, camshafts, timing gears, grease cups, etc., to be cleaned and oiled. All the attention required is that once a week—or whenever the lights grow dim—the owner pour a gallon of gasoline into the tank which forms the base of the motor and press down the starting switch.

A feature of the plant is a new type of piston carrying its own inlet gas passage and embodying an automatic hot spot feature.



Vernier Adjuster

Electrical Merchandising, June, 1922

A new vernier adjuster, to enable the radio user to tune closer and sharper, has been placed on the market by the Riley-Klotz Manufacturing Company, 8 Division Place, Newark, N. J. It is attached to any panel by drilling a hole through which the bushing is inserted and clamped by means of a nut.

Continued on third page following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card

Gossip of the Trade

Glimpses of Electrical Men at Work, at Play, and in Convention— as Caught by Lens and Pencil

Summer Convention of Lighting Fixture Manufacturers, Cleveland, June 28 and 29

The midsummer convention of the National Council of Lighting Fixture Manufacturers will be held at the Hotel Cleveland, Cleveland, Ohio, June 28 to 29.

Several important matters pertaining to the activities of the National Council will be taken up at this gathering. Among these will be the movement for the promotion among members of the installation of more thorough cost-accounting methods.

The committee on plans for the 1923 Lighting Fixture Market will present its report as to a suitable location for the big annual event. In selecting a place the committee is giving careful thought to the question of a permanent Fixture Market—a matter which was first suggested at the Buffalo Convention of 1921, and which would not only reduce the expense involved under the present arrangement of holding the convention in a different city each year, but would also undoubtedly increase the prestige and importance of the Market among dealers, jobbers and manufacturers alike.

New by-laws will also be submitted to the convention by the committee which has them in process of development. The rapid growth of the National Council has rendered this work of revision a necessity in order to fit the vastly increased size of the organization and the scope of its activities.

Considerable progress has been made in the direction of the standardization of the mechanical parts of lighting fixtures, and already eight member-firms are giving serious consideration to the making fixture-parts to the new N. C. L. F. M. standard. Its adoption by many manufacturers is a certainty.

On the day prior to the opening of the convention sessions there will be a meeting of the executive committee of the National Council at the Old Colony Club in the Hotel Cleveland.

Garfunkel Brothers, manufacturers and distributers of lighting fixtures, electrical specialties and wireless apparatus, Newark Avenue and First Street, Jersey City, N. J., have moved into larger quarters where they will conduct a business as jobbers and manufacturers agents exclusively. The company has been established for twenty-five years, originally manufacturing gas mantles and later entering the electrical contracting and lighting-fixture business.

Calendar of Coming Conventions

ASSOCIATED MANUFACTURERS OF ELECTRICAL SUPPLIES, *Spring Lake Beach, N. J. June 19-23.*

NATIONAL COUNCIL OF LIGHTING FIXTURE MANUFACTURERS, *Cleveland, Ohio. June 28-29.*

NATIONAL ASSOCIATION OF ELECTRICAL CONTRACTORS & DEALERS, *Cincinnati, Ohio. Week of Oct. 9.*

Westinghouse Company Adds "Merchandising Sales" Department

Reorganization of the Supply Sales Department and the establishment of a Merchandising Sales Department are the major changes in the organization of the Westinghouse Electric & Manufacturing Company, according to an announcement just made by H. D. Shute, vice-president of the company.

The changes, which entail the promotion and transfer of a number of officers were effective May 1, at which time the new Merchandising Sales Department began to function.

J. J. Gibson, manager of the Supply Sales Department, becomes assistant-to vice-president in the new plan of organization announced by vice-president Shute. In his new position, Mr. Gibson will have general supervision over the activities of both departments.

Other changes and transfers in personnel are as follows:

A. A. Brown, is appointed manager of syndicate operations; J. S. Tritle, who has been manager of the St. Louis office of Westinghouse company becomes manager of the Merchandising Sales Department; T. J. Pace, assistant manager of the supply department becomes manager of the Supply Sales Department; C. E. Allen, manager of the central station division of the Chicago office, becomes manager of the St. Louis office, succeeding Mr. Tritle; George Baily, assistant to the manager of the Supply Department, becomes supervisor of distributing agents; M. C. Morrow, assistant sales manager of the Westinghouse Electric Products Company becomes assistant to the manager of the Merchandising Sales Department, and J. J. Dorney, manager of the Industrial Division, St. Louis office, becomes assistant to the manager of the Merchandising Department.

New York Electrical League Conducts Luncheon Meeting by Radio

For the first time in the history of wireless telephony two meetings of electrical men were called to order over radio apparatus on April 26. Walter Neumuller, secretary of the New York Edison Company, at the broadcasting station of the Western Electric Company, West Street, New York, spoke before members of the New York Electrical League at the Hotel Astor (of which he is president) and members of the New York Electrical Society at the Hell Gate Station, Bronx.

After calling the meeting to order and making a short address, Mr. Neumuller introduced several opera stars, who rendered selections. He then proceeded to the Hotel Astor in time to preside over the meeting of the New York Electrical League.

Thomas E. Murray, vice-president of the New York Edison Company, was among the singers whose selections were broadcasted. John Mills of the Western Electric Company spoke on the subject of radio at the New York Electrical League at the Astor, his talk being illustrated with moving picture and stereopticon slides.

A committee on convenience outlets has been appointed as follows: chairman, Joseph F. Becker; vice-chairman, Samuel Adams Chase; H. W. Bliven, O. H. Caldwell, W. E. Hurley, F. H. Kinnicutt, B. Towsley, C. A. Vaughen, and Ralph Neumuller.

W. L. Goodwin has been appointed chairman of the New York Electrical League's committee on co-operation with the electrical show, and A. L. Berry is the chairman of the new committee on constitution and by-laws.

The Post Merchandising Company is the name of a new retail electrical business recently opened at 44 West 37th Street, New York City, by John W. Post, formerly sales manager for the Knabe Piano Company, and Thomas W. Ward, formerly with the Appliance Distributing Company.

The Sayre-Level Radio Company, Philadelphia, wholesaler and retailer of radio equipment, whose motto is, "Everything in Radio," announces its removal to 41 North Tenth Street, in the heart of the wholesale district, adjacent to the large down-town retail outlets of the city. The company adds that at the new quarters its receiving, storage and shipping facilities will be improved so that instant service can be given on all radio material.

"Go-Getters" to be Rewarded with Blue-Vase Prizes

Do you remember "The Go-Getter"—that inspirational short story by Peter B. Kyne, whose hero, "Bill Peck", crippled in France but still carrying-on, with his motto of "It Shall Be Done", secures, despite apparently unsurmountable difficulties, a certain blue vase which he has been commissioned to obtain? This tale of a true fighter has lifted many a salesman from the rut and set his feet on the road to success. It remained for the Hoover Suction Sweeper Company, however, to apply "Bill Peck's" principles to a large selling organization.

The Hoover Company has set aside a certain quota of its cleaners for each of its salesmen and its district and divisional managers. Those whose sales equal or better their quota figures will qualify as "Go-Getters" and will receive a handsome blue vase, symbolic of "Bill Peck's" feat and their duplication of it. In addition all "Go-Getters" will be taken to the annual Hoover convention this summer at North Canton, Ohio, at the company's expense.

The Electric Supply & Equipment Company, Inc., electrical jobber, of 1270 Broadway, New York City, has purchased the Smith-LeVee Corporation at Buffalo, N. Y., which will hereafter be operated as the Smith-LeVee branch of the Electric Supply & Equipment Company. Mr. Smith, the senior member of the firm, is retiring from active part in the business, while Mr. LeVee will continue as sales manager of the Buffalo branch. The organization of the Smith-LeVee Corporation will not be changed in any manner, except by the addition of two road salesmen. The company will operate as formerly in the jobbing business, except that it will handle the various manufactured lines distributed by the Electric Supply & Equipment Company.

The Pyrene Manufacturing Company, Inc., has moved into its new factory at 520 Belmont Avenue, Newark, N. J., a building of thoroughly modern, fireproof construction. The general offices, formerly located in New York City, and all manufacturing departments will now be grouped under one roof. G. P. Rogers, general sales and advertising manager, announces that the company has installed a department for the sale of a complete line of safety devices as well as its long line of fire fighting appliances. The complete line will now embrace nearly everything in first-aid and fire-fighting appliances and safety devices, covering items from "No Smoking" or "Danger" signs to gas masks, hand-drawn chemical engines, and hand fire extinguishers.

The Atlas Lighting Fixture Company announces that it has moved into larger quarters at 223 Huron Road, Cleveland, where the company is handling a complete line of electric lighting fixtures.

The Appleton Electric Company, 1701-13 Wellington Avenue, Chicago, manufacturers of conduit fittings, lighting and other electrical specialties, announces that R. P. Tillotson who has been associated with the company for the past thirteen years as western sales manager, has taken charge of its California territory, in which they were formerly represented by the Keeler, White Company of San Francisco. Branch office and warehouse will be maintained in Los Angeles. Arthur S. Merrill, formerly sales manager for the Chicago Fuse Mfg. Company and who is well known to the electrical trade will be general sales manager, with headquarters at the Chicago office. In addition to its branch office and warehouse in New York City, the Appleton Electric Company also has resident representatives in Atlanta, Boston, Cleveland, Detroit, Oklahoma City, Philadelphia, Pittsburgh, Portland, and St. Louis.

The Liberty Electric & Manufacturing Company of Memphis, Tenn., has moved to its new home at 267-69 Adams Avenue, corner of Fourth Street. The company is engaged in electrical contracting, repairing and armature winding, under the direction of George W. Dichtel and Joseph Dattilo.

Henry Hyman & Company of 476 Broadway, New York City, has announced the appointment of Jules J. Dreyfuss as manager of the Chicago division of the company. The Chicago warehouse and offices are located at 212-216 West Austin Avenue, Chicago.

Find a man who loves horses and who could generate a grin down on the Border, and add to those specifications a keen entnusiasm for the home-enhancing blessings of electricity and you've located a pretty regular citizen. Walter Boyd, recently appointed manager of retail sales for the New York Edison Company, is, in addition, an ardent radio fan. Despite the fact that not a single cactus is to be found in town, Mr. Boyd claims a fondness for Glen Ridge, N. J., as a residence town.

I. Rosenblatt announces that the Gerringer & Rosenblatt Company, manufacturers of lighting fixtures, has been dissolved, and that he has organized the Globe Lighting Fixture Manufacturing Company at 82 Bowery, New York, which company is manufacturing a complete new line of quality lighting fixtures. I. Rosenblatt is president of the new company; M. Rosenblatt is the designer in charge of a specialized inside organization; and L. Lobel is general manager.

Ernest N. Calhoun, formerly sales engineer with the Cutler-Hammer Manufacturing Company, has been appointed sales manager of the electrical heating department of the Edwin L. Wiegand Company of Pittsburgh, Pa., manufacturers of the Chromalox electrical heating unit.

The Trumbull-Vanderpoel Electric Manufacturing Company of Bantam, Conn., manufacturer of panelboards, knife, safety and radio switches, announces the appointment of L. B. Underwood as manager of its Philadelphia office at 139 North Fourth Street. This office will cover the territory in southern New Jersey, eastern Pennsylvania, Delaware, Maryland and District of Columbia.

The Diehl Manufacturing Company, of Elizabeth, N. J., manufacturer of motors, generators, fans and exhaust wheels, announces the opening of a Southern office and stockroom at 45-A Trinity Avenue, Atlanta, Ga., under the supervision of J. H. Shahan, sales representative.

The Save Miniature Lamp Company of Toledo, Ohio, has been chartered with a capital stock of $100,000 to manufacture and distribute electrical lamps of several types. Headquarters of the company are located at 740 Spitzer Building. The incorporators are Oscar J. Smith, John B. McMahon, C. W. F. Kirkley, H. L. Christopher and Bernice S. Oschaler.

The Driskell Bench Company of Columbus, Ohio, manufacturer of "Sol-San" knock-down steel benches, desiring to express its interest in the "Electrical Home" idea, has offered to furnish gratis, with exception of expressage, one "Sol-San" (solid-sanitary) knock-down, steel tub-bench to each of the first ten dealers to apply for a bench for use in a model demonstration Home Electric being built. Only one application will be accepted from a single county in any state and that on condition that the "Sol-San" be displayed as in use with an electric washer and given the same publicity as any other device shown in the exhibit.

The McCleery-Carpenter Electric Company of Columbus, Ohio, announces that it has taken over the second floor of the building at 85-89 North Third Street, the lower floor of which it has occupied since the formation of the company more than a year ago. The second floor contains 3,600 sq.ft. of space and will be given over for general offices and storage of stock.

Two-Light Socket

Electrical Merchandising, June, 1922

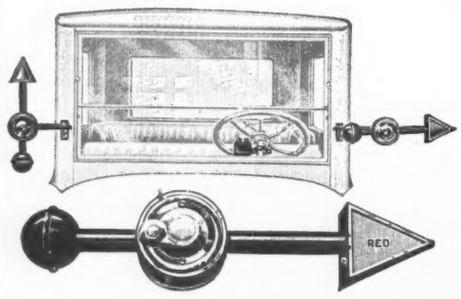
A new two light device, called the "Ad-A-Lite" socket, is being offered by the M. Propp Company, 524 Broadway, New York City, two features of which are a center spring-contact in the socket and a groove for the shade holder. The base is made long enough, also, to make sure to seat, no matter how deep the socket or receptacle might be.

Automobile Arrow Signal

Electrical Merchandising, June, 1922

Another of the electric automobile signals that are making traffic safer on our thoroughfares, is a swinging arrow signal, the "Hankee," made by the Naser Electric Company, Minneapolis, Minn. The signals are on brackets on either side of the car, so that each is visible both from the front and the rear.

By pushing the button on the steering column, the signal is lowered and at the same time a two-candle power lamp inside the arrow housing is lighted, showing a red light to the rear and a white light to the front.



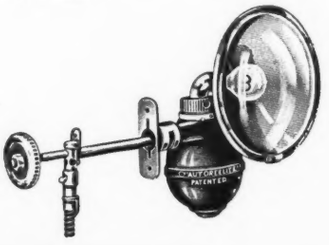
Automobile Spot Light

Electrical Merchandising, June, 1922

The Appleton Electric Company, Chicago, Ill., which recently took over the Anderson Electric & Equipment Company, announces the latest models of "Auto Reelite"—the spotlight on a reel.

Model "F," which is illustrated, is for use with enclosed cars. With it there is no awkward reaching outside—a turn of the control wheel throws the light up, down or sideways. Model "G" is practically the same except that it has clamps for attaching to open cars, when used either with or without storm curtains.

This spotlight can be instantly detached and reeled out. It is furnished in either black, nickel trimmed, or in all nickel finish.



Toy Steam Engine

Electrical Merchandising, June, 1922

Electrically heated toy steam engines are a new addition to the toy lines made by the Raven Toy Works, 4713 North Lincoln Street, Chicago. They are made in two types—horizontal (1/20 hp.) and upright (1/24 hp.). Equipped with a nichrome heating element they also have a tone whistle, tested safety valve, throttle speed valve, and standard water gage.

Double-Duty Socket

Electrical Merchandising, June, 1922

Adapted for standard shade holders and standard sockets is the new "Dualite" plug brought out by R. B. Corey Company, Inc., 1170 Broadway, New York City.

The device is all metal, covered with an old brass finish which tends to match most of the finishes of the surrounding fixtures.

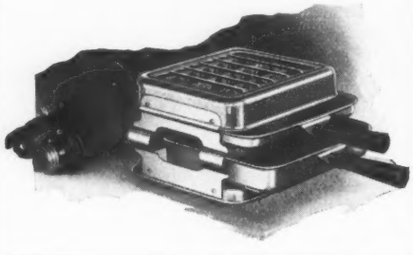
Table Stove

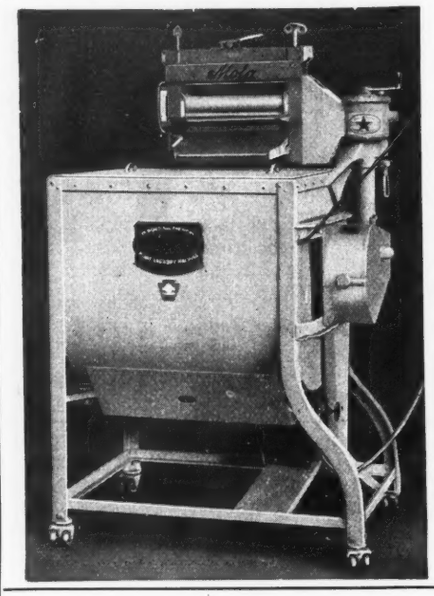
Electrical Merchandising, June, 1922

A new electric stove for light cooking is being distributed by the Standard Electric Sales Company, 105 W. Monroe Street, Chicago, and manufactured by the Allmur Manufacturing Company, Marion, Ind.

Its equipment consists of two frying pans which can be used above or below the heating element. These pans are held securely in place by the recessed top of the grill. The small pan can be utilized as a cover for the large pan when frying.

The stove is made of steel, nickel finished.





Cylinder-Type Clothes Washer

Electrical Merchandising, June, 1922

A large-capacity clothes washer is often appreciated both by the housewife with a large weekly wash and by the housewife with a small one—because in the one case it makes fewer loads necessary, and in the other it makes only one load necessary, instead of one full and one small one. For this reason, the "Mola" electric washing machine, made by the Modern Laundry Machine Company, 1424 East Nineteenth Street, Kansas City, Mo., has been increased from 6-sheet to 8-sheet capacity.

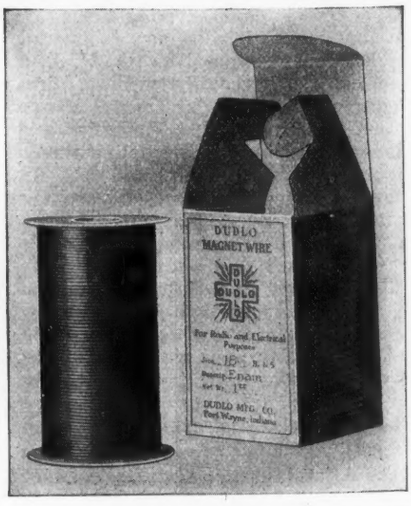
Another change in the new model is the automatic stopping of the cylinder with its door on top. Other improvements are: Aluminum and copper rivets throughout; heavy bronze slip bushing with oil packing nut for main drive shaft bearing; and 12-in. power wringer rolls.

Magnet Wire on Spools

Electrical Merchandising, June, 1922

To facilitate the sale of its magnet wire, the Dudlo Manufacturing Company, Fort Wayne, Ind., is now offering new fractional pound spools on which wire is wound.

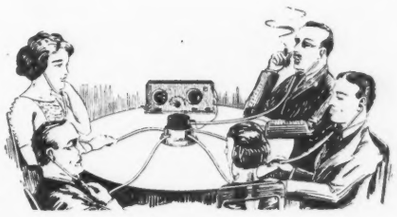
This wire is the regular "Dudlo" magnet wire which the company has for years supplied to the Government and manufacturers of radio and electrical apparatus. It is supplied with ¼, ½ and 1 pound packages in seven different insulations: plain enameled, single cotton covered enameled, single silk covered enameled, single cotton covered, double cotton covered, single silk covered and double silk covered.



Multiple Radio Receiver Device

Electrical Merchandising, June, 1922

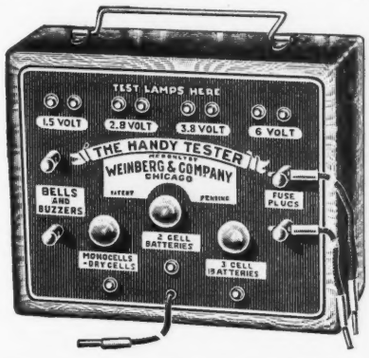
A device known as the "Multiphone" is being manufactured by the Hipwell Manufacturing Company, 825 North Avenue, West, Pittsburgh, Pa., which enables a group of people to listen in with one radio receiver. The usual type of radio receiver is placed face down upon the device and held in place by means of elastic bands. Extension tubes are furnished, four feet in length, and each tube is fitted with ear bulbs.



Electrical Tester

Electrical Merchandising, June, 1922

Weinberg & Company, 870 Blue Island Avenue, Chicago, have recently placed on the market an electrical tester for testing, without a line current, or outside connection of any nature, automobile and flashlight lamps, fuses, bells buzzers, dry or flashlight batteries. It may also be used for detecting grounds or shorts. In emergencies it is a source of power for tail lamps, trouble lamps and horns.



For testing flashlights and auto lamps, all that is necessary is to place the lamp on the points designated on the device. For testing bells and buzzers, the two terminals of the bell are placed on the two tester posts designated "Bells and Buzzers." For testing fuse plugs the two posts marked "Fuse Plugs" are used, resting the center of the plug on one post and the side of the fuse on the other post.

By using these fuse plug posts in connection with the two wires furnished, one has a "series" for finding grounds and shorts in electric irons, vacuum cleaners, motors, portable lamps, lighting fixtures, etc.

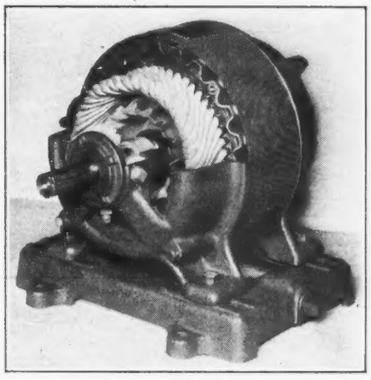
Air-Screened Induction Motor

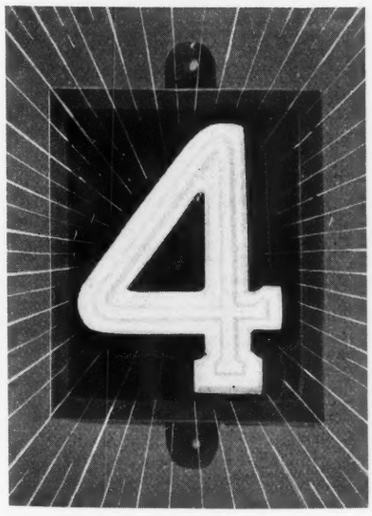
Electrical Merchandising, June, 1922

New self-ventilated motors embodying semi-enclosing or air-screening features with a 40-degree temperature rise at full load, equaling in weight and dimensions the average open-type, 40-degree rise motors and yet maintaining the simplicity of squirrel cage construction, have recently been developed by the S. A. Woods Machine Company, Boston, Mass.

All ventilating air is screened as it enters through openings in the center of the frame, and after passing through the motor is exhausted through the bearing heads. No air enters over the bearing housings, hence oil accidentally spilled in filling cannot be drawn into the motor.

These motors are manufactured for polyphase circuits of standard frequency and voltages in ratings up to and including 25 h.p. at 1,800 revolutions a minute, and for corresponding 1,200 revolution ratings.





Luminous House Numbers

Electrical Merchandising, June, 1922

House numbers that can be read on the darkest night are a boon to passers-by, and, when they require no care, to the owner too. The Luminite Corporation, 24-30 Scott Street, Newark, N. J., is now offering house numbers that make use of the luminous properties of radium material.

The radium material is deposited in depressions on the reverse side of the number. To magnify the rays from the radium and make them visible at 20 or 25 ft., a magnifying lens is used.

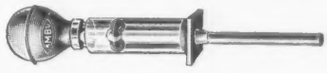
The frame of the number is designed to be both weather- and water-proof.

Battery Tester

Electrical Merchandising, June, 1922

Designed especially for the use of car owners or radiophone owners is the novel battery tester placed on the market by the American Bureau of Engineering, Inc., 2632 Prairie Avenue, Chicago. It is a hydrometer, can be read in semi-darkness, and is only 6½ in. long. It consists of a bulb, a filling nozzle of rubber and a glass tube, made of materials whose specific gravities differ.

In testing, the bulb is pressed and the device is inserted in the battery and allowed to fill with the liquid, after which the position of the three balls will indicate the condition of the battery. If all balls float, the battery is fully charged; if the white ball sinks, the battery is not quite fully charged; if the green ball sinks, it is nearly exhausted; and if the red ball sinks, the battery is dead.



Sectional-Plan Radio Receiving Apparatus

Electrical Merchandising, June, 1922

With the idea of giving the radio amateur the assurance that he is buying apparatus which can be added to from time to time without throwing old parts away, the Jewett Manufacturing Company, 342 Madison Avenue, New York City, is offering a series of standardized cabinets.

All six units of this series are built into the same size of cabinet, so that when they are coupled together they form a complete professional outfit. The binding posts are connected straight across from one unit to another. The units are built for each other, and include a crystal receiving unit, a V. T. detector and one-step amplifier unit, a combined V. T. detector and one-step amplifier, a two-step amplifier, and a clarion loud speaker.

Porch Bracket

Electrical Merchandising, June, 1922

A porch bracket offered by the Liberty Machine Company, Wauwatosa, Wis., is made of cast iron, finished in green or black. It may be had with either a 3½ in. or a 4 in. globe holder, and the size of the back plate is 4½ x 9 in.

Speed, Heat and Light Regulator for Household Appliances

Electrical Merchandising, June, 1922

A new regulator recently placed on the market by the Wirt Company, 5221-27 Greene Street, Philadelphia, Pa., is a little rheostat which can be used in the electrical home for the following purposes:

To give four speeds to the many new single-speed fans now on the market; to furnish four distinct speed controls to vibrators; to give four heat controls to the single-heat heating pads; and to reduce the excessive speed of the spindle on the various electric home and fountain drink mixers.

The device will also dim table portables and floor lamps which have two or three lights, where the total wattage of the lamps does not exceed 60 watts.

The regulator in this case is screwed into the base-board receptacle and a portable plug is inserted into the regulator. The various controls are clicked off simply by turning the fibre ring.

Continued on third and fourth pages following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card.

Tornado Electric Company—Importer and manufacturer of electrical appliances has moved from 14 West Fortieth Street to new and enlarged quarters at 565 Broadway where, in addition to executive offices, it will have a large display room.

The Reynolds Electric Company of Chicago, manufacturer of fractional horsepower motors, flashers, color hoods, and reflectors, announces that its New York office is now located at 120 West Thirty-second Street, Room 1607, in charge of C. W. Ellis.

New Retail Electrical Stores

ALABAMA

Birmingham—Electric Service Company, 2226 Fifth Avenue, North.

ARKANSAS

Conway (Faulkner County) — Brown Electric Company, in quarters formerly occupied by the Lincoln-Jones Electric Company.

DeQueen (Sevier County) — DeQueen Light & Power Company, successor to Albert Reese.

CALIFORNIA

Cloverdale (Sonoma County)—Jack Warren.

Compton (Los Angeles County)—George Farrel.

Corona (Riverside County) — Corona Electrical Shop, Frank Pike and W. G. Moss, proprietors, 521 Main Street.

Glendora (Los Angeles County)—Paul Steckel, Box 87.

Martinez (Contra Costa County)—R. J. Hersey, successor to Doctor & Elliot.

Ojai (Ventura County)—Ventura Electric Company.

Palo Alto—Werry & Roller, University Avenue and Waverly Street.

Pasadena—L. C. Taylor, moved to 815 East Colorado Street.

San Francisco—Morrison & Chaix, 650 Polk Street. Old concern recently incorporated.

Santa Barbara—The Electrical Store, Ben Gutierrez, proprietor, 1111 Garden Street.

Santa Paula (Ventura County)—Charles P. Chamberlain, 118 West Main Street, successor to T. H. Armstrong.

Sierra Madre (Los Angeles County)—Norman B. Jensen, in Andrews & Hawks Store.

Venice—W. Carlson, 40 Zephyr Street, successor to H. Holmes.

COLORADO

Denver—Nollenberger & Derner, moved to 320 Fifteenth Street.

Reynolds Radio Corporation, moved to 1534 Glenarm Place.

Quality Automotive-Radio Supplies Company, 1330 Broadway; incorporators M. M. Tull and others.

La Junta—Phillips Electric Company, 12 East Second Street; R. J. Phillips and John Marcoullier, proprietors.

CONNECTICUT

Bridgeport—Security Electric Company, electrical contracting and appliances. B. F. and H. C. Abercrombie, 636 Water Street; Peter Sorenson and A. L. Peterson of Hartford.

Union Light Company, 192 Fairfield Avenue, electrical supplies and fixtures. Recently incorporated for $60,000 by Herman Abrams, Jack Osclahn, B. M. Tower and M. Levine.

Essex (Middlesex County)—Malacarne Bros., Pond Block.

Hartford — Angello Electric Company, moved into new and larger quarters at 165 Russ Street, Hartford.

New Haven—American Electrical Appliance Company, 1379 Chapel Street. M. S. Veznaian, proprietor.

South Norwalk—Norwalk Electric Company, North Main Street. Also in business in East Norwalk, at Liberty Square.

Westbrook (Middlesex County)—George Ruddiman.

FLORIDA

Pensacola—Electric Shop. R. W. Peake, president; V. McMorris, vice president; B. E. Peake, secretary-treasurer.

Tampa—Tampa Bay Electric Company, formerly Electric Fixture Company, 208 West Lafayette Street. A. R. Merrill and Roy Peterson. Electrical supplies, appliances and radio equipment.

IDAHO

Idaho Falls (Bonneville County)—Auto Electric Tire Company, successor to Tires Store. Tires and electrical supplies.

ILLINOIS

Bloomington (McLean County)—Emmett-Scharf Electric Fixture Company, 317 North Center St.

Charleston (Coles County)—White Electric Company, Minor Best, manager.

Chicago—Electrical Supply Company, 174 West Randolph Street. Incorporators, Leo H. Goldberger and others. Electric supplies and radio outfits.

Carter Radio Company, 209 South State Street. Theodore Sheldon and others.

National Radio Company, 6 North Wells Street.

When a man can slip on a pair of overalls, step out into those wild, open spaces where men are men, and tickle a healthy mountain lion into submission, what chance has a mere human prospect got? Here's E. D. Stewart, El Paso, Texas, manager of the Westinghouse Electric & Manufacturing Company, the tickled lion, and Mr. Stewart's capable Assistant Tickler.

Re-Dor Electric Company, 3159 West Roosevelt Road. Samuel Neer and others.

Ace Electric Company, 125 North Wells Street. Arthur Chellberg and others.

Duncan Electric Cooker Company, 20 East Jackson Boulevard. Warren L. Duncan, and others, incorporators.

United Incandescent Lamp Corporation of Illinois, 119 North Wells Street. Incorporators Martin R. Leeb and others. Electrical appliances, fixtures and radio outfits.

Humboldt Electric Shop, Inc., 1025 North California Avenue. Incorporated by Fabian Pincoffe and others.

Fireside Radio Set Company, 6459 Green Street. C. Spencer and others.

Wetmore Electric Shop, moved to 4863 Broadway.

East St. Louis—East St. Louis Electrical Company, 327 Collinsville Avenue. John Ames and others incorporators.

Metamora (Woodford County)—Garber Radio-Electric Company, Arthur W. Garber and John H. Garber, proprietors. Agents for radio supplies.

Murphysboro (Jackson County)—Automotif Electrical Shop, J. A. Morris, proprietor.

Oak Park—Radio Equipment Corporation, 104 Wisconsin Avenue. Incorporators S. B. Sheahan and others.

Rio (Knox County)—B. E. Frankenburg.

Rockford—John Dahlin.

Springfield (Sangamon County)—Kavanaugh Electric Fixture Company, 619 East Adams Street.

Wood River (Madison County)—E. G. Weiner.

INDIANA

Boonville (Warrick County) — Electric Shop, West Side Court Square.

Butler (Dekalb County)—H. C. Tinney.

Crawfordsville (Montgomery County)—Indiana Vulcanizing Company, installing radio department.

Decatur—Bernard Clark, James Down and Gerald Cole. Radio shop.

Elwood (Madison County)—N. & R. Electric Company, Watson Neal and Robert Reveal, proprietors, South A and Sixteenth Streets.

Fort Wayne—Protective Electrical Supply Company, added radio department.

Indianapolis—North Side Electric Shop, L. R. Fagg, proprietor, successor to A. H. Opperman.

Alexandria Hardware & Electric Company, Corner West Tenth and Bellview Place. Will open about July 1.

Kendallville (Noble County) — Charles Lee & Son, 225 South Main Street; electrical and radio supplies.

Kokomo—Kokomo Electric Company, added line of radio supplies.

Laporte—Bluebird Electrical Shop, Jefferson & Michigan Avenues.

Laurel (Franklin County)—Hydro Electric & Power Company, new branch at Laurel.

Lebanon (Boone County)—Willard Battery Station, South Lebanon Street. Added line of radio supplies to battery station.

New Castle (Henry County)—Interstate Public Service Company, K. & P. Block. Electrical fixtures.

Richmond (Wayne County)—Linderman & Faucett, 900 Southwest A. St.

Shelbyville—Roy S. Gable, East Broadway. Added electric shop to auto repair business.

South Bend—E. J. Scheibelhut, Lincoln Way West and Spring Street.

Koontz Brothers Electric Company, Harvey and Herbert Koontz, proprietors, 721 Cushing Street.

Wabash—James S. Hawkins and Paul L. Meyers.

Harold Durr; radio and electrical supplies.

IOWA

Cedar Rapids—Iowa Radio Apparatus Company. Incorporated by E. C. Steiner and others. Capitalization $100,000.

Twelfth Street Electric Company. Incorporators: Ernest Ostrom and others.

Dubuque—Kerper Electric Company, Locust Street. M. E. Kerper and others.

Hawarden (Sioux County)—Truesdell & Trotman, successors to Roy Stephenson. Added radio department.

New Hampton (Chickasaw County) — Charles I. Crawford.

Spencer (Clay County)—Electrical Supply & Construction Company. George Hiett and Henry Doty, proprietors, successors to Nicholas Weis.

Waterloo—A. C. Sweetman.

KANSAS

Holton (Jackson County)—Walter Coffeen & Fain Riley in quarters formerly occupied by Decker Electric Company.

Hutchinson (Reno County)—Bert Sooby and Claude Harwood.

Manhattan (Riley County)—Tri-Electric Shop, Howard J. Martin, proprietor, successor to Martin & Braithwait.

Offerle (Edwards County)—O. H. Renfro.

Pratt—H. F. Brower. Formerly located in Larned, Kans.

KENTUCKY

Brocksville (Bracken County)—R. W. Kain.

LOUISIANA

New Orleans—Premier Service Company, 217 Baronne Street. C. R. Krapton in charge.

National Battery Works, 635 Baronne Street.

Electrical Specialty Shop, 107 Baronne Street.

MAINE

Portland—The Faxon Radio Electric Company, Longfellow Square.

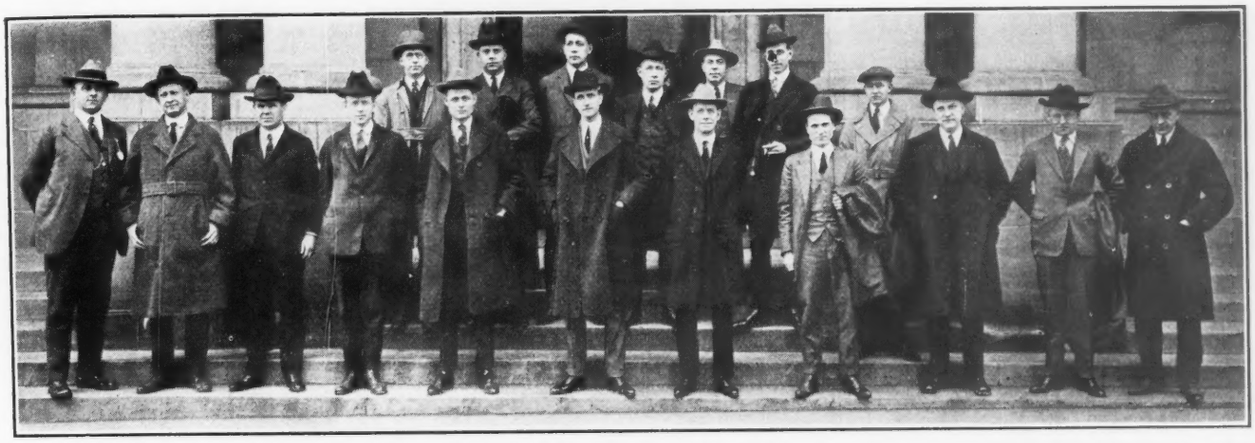
MARYLAND

Hagerstown—Austin E. Lutz, 15 East Washington Street, auto and radio supplies.

MASSACHUSETTS

Boston—Harry Eisner Company. Incorporators Harry Eisner, 158 Warren Street, Allston, Mass., and others.

A Dozen and a Half of the Rocky Mountain Electrical Cooperative League's Boosters



You've read about all the things the Rocky Mountain Electrical Co-operative League is doing to spread the blessings of electricity out in "the great open places of the West" as Harry Leon Wilson puts it, "where men are men." And here, grouped on the steps of one of the many Salt Lake City places still open, we found the League's Advisory Committee assembled for the generation of "more and better business" ideas. That they succeeded goes without saying.

P. M. Parry is chairman, J. A. Kahn is vice-chairman, and R. M. Bleak is secretary-treasurer. The complete list of the advisory committee's members follows:

Jobbers: C. B. Hawley, Manager Intermountain Electric Company; A. J. Callaway, Sales Manager, Western Electric Company; J. A. Kahn, President, Capital Electric Company; J. D. Nicholson, Mine and Smelter Supply Company.

Electragists: G. R. Dodge, Manager, Dodge Brothers Electric Company; G. W. Forsberg, Manager, Wasatch Electric Company, L. G. Robbins, 523 Eighth Avenue; F. C. Wolters, Manager, Modern Electric Company.

Manufacturers: Robert Miller, Manager, General Electric Company; W. A. Moser, Manager, Westinghouse Electric & Manufacturing Company; B. E. Rowley, District Manager, Edison Electric Appliance Company; Stanley S. Stevens, Manager Stevens Sales Company.

Utah Power & Light Co.: S. R. Inch, vice-president and general manager; P. M. Parry, commercial manager; H. M. Ferguson, division manager, Salt Lake division; R. M. Bleak, Supt. Lighting & Appliance Sales.

Brockton—Sager Electric Supply Company, 20 High Street, a complete line of electrical appliances.

Haverhill—Herbert W. Porter, 14 West Street, successor to Porter and Wicks.

Medford—Yeamans & Rixford, Tufts Square.

New Bedford—Crandon Bros., 816 Kempton Street.

Wakefield (Middlesex County)—William E. Gleason, 115 Albion Street.

Salem—Francis L. Stanley Company, new quarters in Y. M. C. A. Building.

MICHIGAN

Benton Harbor—C. L. Myers, successor to Curtis & Myers.

Detroit—Advance Radio & Electric Company 1725 Hasting Street.

American Radio Company, 523 Woodward Avenue.

Broadell Brothers, 7931 Charlevoix Avenue.

Burkuglen Radio Company, 6361 Epworth Boulevard.

Carlton Radio Supply Company, 4982 Bangor Avenue.

Central Radio Products Company, 2104 Woodward Avenue.

Champion Radio Company, 4446 Woodward Avenue

Cleartone Radio Company, 810 Peter Smith Building.

Community Electric Shop, 8347 Grand River Avenue.

James W. Dinan, 3441 Woodward Avenue.

Electrical Battery Service Company, 5940 Second Street.

Gem Radio Shop, 3601 Woodward Avenue

Great Lakes Radio & Supply Company, 8849 Grand River Avenue.

Max Grossfeld, 143 East Jefferson Street, moved to this address from 919 Farmer Street.

W. E. Hirich, 1263 Griswold Street.

Holland America Radio Company, 817 Hancock Street West.

Henry F. Hurley, 4842 Hamilton Avenue.

L & B Radio Shop, 6195 McMillan Avenue.

Lincoln Radio Company, 5465 Lincoln Avenue.

Marston Radio Supply Company, A. W. Hindson and Abraham Goldberg, 653 Marston Street.

Master Radio Company, 8438 Whittaker Avenue.

Mathews Radio Equipment Company, 234 Forest Avenue.

Michigan Radio Supply Company, 8867 Buhl Avenue.

Radio Apparatus Company, 205 Equity Building.

Radio Exchange & Service Company, 4847 Woodward Avenue.

Radio Phone Attachment Company, 150 Putnam Avenue.

Radio Service Corporation, 5860 Cass Avenue.

Radio Specialty Company, 435 Book Building.

Radio Supply & Manufacturing Company, 6764 Floyd Avenue.

Radiola Company, 99 Garfield Avenue.

Rolland America Radio Company, 817 Hancock Avenue.

Roto Radio Shop, 414 Grand River Avenue.

State Radio Shop, 238 State Street

Stewart Walker Company, 8 Clifford Street.

Twentieth Century Radio Corporation, 2311 Woodward Avenue.

Walton Radio Company, 4831 Woodward Avenue.

Wells Radio Company, 116 Witherell Street.

Woodward Radio Company, 7638 Woodward Avenue.

Grand Rapids—Nelson Steketee, Builders & Traders Exchange Building.

Koper Brothers, 972 Cherry Street S. E.

Ishpeming (Marquette County)—Cliffs Electric Company.

Manchester (Washtenaw County)—Frank Kern successor to Kern Bros. Electric Company.

Port Huron—Orr Hardware Company, Court Street.

Saginaw—Gregory Lighting Company, 133 South Washington Street, successor to William Gregory.

MINNESOTA

Bemidji (Beltrami County)—P. L. Haling and F. D. Walker, 119 Third Street.

Minneapolis—Laundryette Electrical Company, new shop at 823 Nicollet Avenue.

Gainaday Electric Company, will move to Thirty-sixth Street from 29 Fifth Street. Electric supplies.

MISSOURI

Joplin—Seltzer Battery & Electric Company, 610 Joplin Street.

Kansas City—Midwest Radio Company, 1204 Grand Avenue.

Sweney Radio & Electric Company, c/o Waltman & Waltman, Ridge Arcade.

St. Joseph—Ajax Electrical Company, 719 Francis Street.

St. Louis—Remmert Vacuum Cleaner Company, 500 North 7th Street, leased additional salesroom at northwest corner Tenth and Locust Streets.

Rich-Chaplin Electric Company, 1509 Chestnut Street.

Victor Electric Company, 2722 Gravois Street.

Air-Way Electric Product Sales Company, 312 North Eleventh Street.

M. K. Clark & Company, old concern recently incorporated C/o McKee Clark, director, 1529 Pine Street.

Laclede Gas & Light Company, new store and salesrooms at 2744 Cherokee Street and 3524 North Grand Avenue.

Webb City—William Hunter Electric Company, Blake Theatre Building.

NEBRASKA

Fairbury (Jefferson County)—Fairbury Radio Company, 216 Fourth Street.

Lincoln—Lincoln Auto Electric Company, 1514 N Street.

NEW JERSEY

Boonton—Ward's Electric Shop, Inc., moved to 618A Main Street.

Ocean City—Hildreth, Becotte & Hildreth, 708 Asbury Avenue.

Trenton—Helios Electric Company, 33 West State Street.

The New York Light Supply Company, moved to 125-127 Factory Street.

Gold Electric Store, 455 South Broad Street.

NEW YORK

Amityville (Long Island)—William Maul, successor to Maul and Wagengast.

Binghamton—Apex Sales Company, 162 State Street, Vernon B. Landreth, manager.

Brooklyn—Academy Lighting Fixture Company, G. O. Swenson manager, 136 Ashland Place.

Blumenthal Lighting Fixture Company, 1982 Bedford Avenue.

The Regal, 358-360 Livingston Street.

H. Hofener, moved to 7807 Fifth Avenue.

Cortland—The Electric Shop, Samuel W. Chapman, successor to Farm & Home Supply Company, 5 Tompkins Street. Electrical appliances.

Hornell—Mack Electric Company, new store in New Burdet Building.

Jamaica (Long Island)—Concord Electric Company. Incorporators, L. Freed and others.

Javins-Brandmaier. Incorporators, C. Brandmaier, 67 Seventy-sixth Street, Richmond Hill, L. I.

Jamestown—Hanson Electric Company, South Main Street, contractors, added line of electrical appliances

Sunny Line Electric Sales Corporation, successor to Premier Electrical Appliances Company.

New York City—H. Bendheim, moved to 3488 Broadway.

Rialto Radio Corporation, 1487 Broadway.

Henry Kirby Davies, 603 Sixth Avenue.

Post Merchandising Company, 44 West 37th Street; John W. Post and Thomas W. Ward.

Richmond Hill—H. K. Electric Corporation, 105-13 Jamaica Avenue.

Home radio & Supply Company, Jamaica Avenue opposite 118th Street.

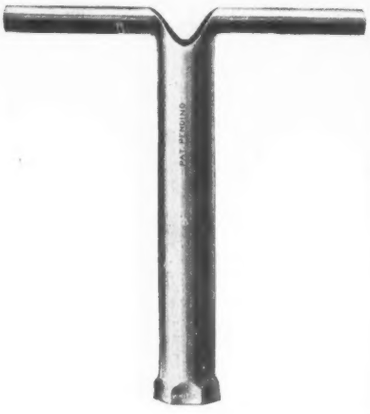
Syracuse—The Albert Electric Company, 553 South Salina Street, formerly Central Electric Company, Albert Bros., proprietors, of 829 South State Street.

Warsaw—M. S. Clark, Jr., Fred Bartlett Block, West Buffalo Street.

Lock-Nut Wrench

Electrical Merchandising, June, 1922

The new "Jiffy" lock nut wrench made by the J. H. White Manufacturing Company, 111 North Third Street, Brooklyn, N. Y., permits locking the standard § in. lock nut in a smaller place than the average plier will fit into. In addition to this, the hollow stem is designed to permit the assembling of a wired fixture or bracket without twisting the wire or cord.



Generator Set for Battery Charging

Electrical Merchandising, June, 1922

A small two-bearing motor generator set for private or public battery charging, signal work or plating has been placed on the market by the Electric Specialty Company, Stamford, Conn. The set complete is equipped with a switchboard mounted on the set. It can be wound for charging one or two 6-volt batteries or 20-amp. plating.

Radio Telephone Receiving Set

Electrical Merchandising, June, 1922

The Radio Industries Corporation, 131 Duane Street, New York City, is offering a new telephone headpiece called the "Rico Tripole Phone Set." The set employs three magneto poles in the case, and uses a single spool.

These sets are wound in standard sizes of 2,000 ohms and 3,000 ohms.

Rheostatic Switch

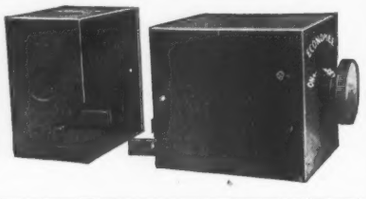
Electrical Merchandising, June, 1922

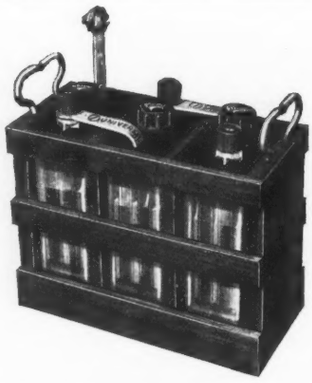
Liquid resistance is used in the "Economee" switch being manufactured by the Economee Rheostatic Switch Company, 3551 North Fifth Street, Philadelphia, Pa.

In appearance the switch is similar to the ordinary snap switch now in general use, and is operated practically in the same manner. A half turn shifts from "on" to "off."

The resistance is controlled by a simple timing device, and brings a lamp to full candle-power in a few seconds.

When thrown into operation the switch feeds with precision, the manufacturer explains, and it is entirely beyond the volition of the operator to accelerate the gradual application of the current. On the other hand, the current may be cut off instantly at any stage, whether on motors or lighting units.





Storage Battery for Radio Use

Electrical Merchandising, June, 1922

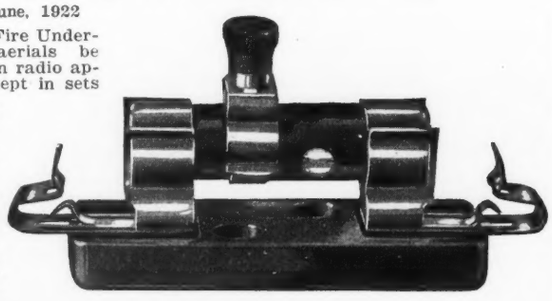
Assembled in three glass jars and mounted in a mahogany-finished wooden crate, the new "GR-Jr." radio storage battery, manufactured by the Universal Battery Company, 3410 South La Salle Street, Chicago, is designed especially for use in connection with a home charging outfit. The plates of this battery being visible, the operator is able to watch the battery's action on charge and discharge.

The battery is rated at 6 volts, with a capacity of 16 hours at 3 amperes discharge. Its net weight is 15 pounds.

Combination Lightning Protector and Pull Switch

Electrical Merchandising, June, 1922

The National Board of Fire Underwriters requires that aerials be grounded at all times when radio apparatus is not in use, except in sets used for receiving only, when the ground switch may be replaced by an approved type of lightning arrester. The lightning protector offered by the Fernando C. Mesa Company, Irvington, N. J., meets these requirements, and can be left permanently connected in the circuit without detracting from the signals received.



Magnetic Dog

Electrical Merchandising, June, 1922

"Radio Rex" is the name of the mystifying toy dog that dashes out of his kennel whenever his master calls his name. The toy is operated by sound waves, such as are created by the sharp calling of the dog's name—the waves releasing the mechanism which sends the dog shooting out of the kennel.

The kennel is made of wood and metal, and measures 6 x 6 x 7 in. It is manufactured by the John Hugo Manufacturing Company, 60 Franklin Street, New Haven, Conn.

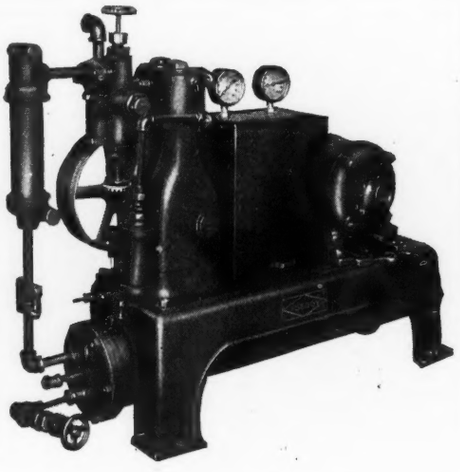
Electric Driven Refrigerating Machine

Electrical Merchandising, June, 1922

An electric driven, self-contained refrigerating machine known as the "Iseboy" is being marketed by Associated Refrigeration Products, 189 W. Madison Street, Chicago, Ill. The machine is furnished with an electric motor of standard make, with characteristics to conform to local voltage specifications.

It is pointed out by the manufacturer that this machine meets the needs of butcher shops, cafés, florists and other places requiring refrigeration for commercial purposes. For country estates, also, the "Iseboy" is adapated for dependable service.

The machine is manufactured either with or without automatic features. Fully automatic sets are equipped with a positive thermostatic control switch, which can be easily adjusted to the desired temperature range.

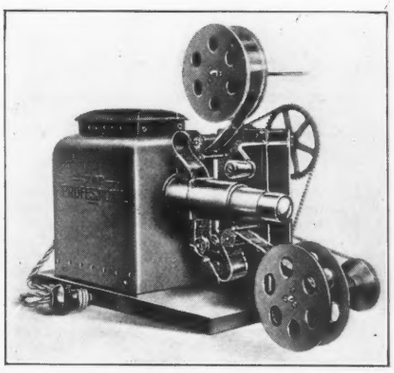


Household Moving Picture Machine

Electrical Merchandising, June, 1922

A new small, compact, moving picture machine adapted primarily for home projection, called the "Professional," is being offered by A. B. Cummings, Attleboro, Mass.

The new model is fitted with quiet, detachable safety reels, special film guide and retainers. Its dimensions are 18 in., in length, 7 in., width, and 13 in., in height. Some of its features are: steel frame; steel driving rod and crank shaft run in bronze bushings; silent chain drive; finish, black enamel and nickel.



Electrically Heated Embossing Blocks

Electrical Merchandising, June, 1922

The electrically heated embossing blocks made by the Dalton, Marsh Company, Danvers, Mass., are designed for use in the ordinary job printing press by locking them up in the chase like a form of type. They supply the heat which is essential to good embossing, and in addition to assuring much better results than can be obtained by cold embossing, the press is relieved of practically all excessive strain.

Radio Antenna Wire

Electrical Merchandising, June, 1922

Radio antenna wire which has an exterior of pure copper welded to a steel core, is being offered by the Copper Clad Steel Company, Braddock P. O., Rankin, Pa.

This construction is designed to make the wire strong enough to stand up under severe sleet and wind loads, and at the same time capable of remaining taut in the wind. The copper coating provides the necessary outer covering of high conductivity metal.

It may be had in standard sizes for antennae of all stations; for lead-in and ground connections of receiving stations; for antennae feeders and ground connections of sending stations; and for all earth grounding.

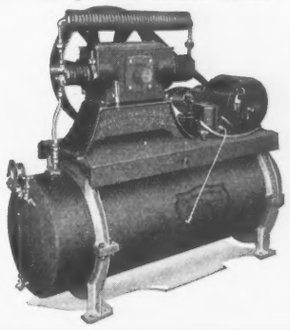
Air Compressor Outfit

Electrical Merchandising, June, 1922

For service in garages, tire repair shops, filling stations and similar places, a line of electrically operated air compressor outfits has been developed by the Au-to Compressor Company, Wilmington, Ohio. The outfits are furnished for operation on single or polyphase alternating currents, 60 cycles, 110 and 220 volts, and for 220, 110 and 32 volt direct current circuits.

The two-stage outfit, Model A-25, has a low pressure cylinder of 2½" bore and a high pressure cylinder of 1 5/16" bore. The stroke is 2¼". The compressor is air-cooled, operates at 350 r.p.m., and has a displacement of 2.48 cubic feet a minute.

The single stage outfit, Model E-68, has a compressor of 2" bore by 2¼" stroke. It operates at 550 r.p.m.



Electric Refrigerator Operating On Absorption Principle

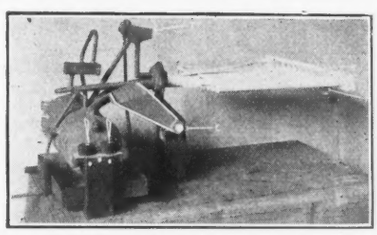
Electrical Merchandising, June, 1922

A household electric refrigerator without valves or pump, operating on the absorption principle, is being manufactured by Keiths, Limited, Toronto, Ont. The heat-absorbing device, as applied to the family refrigerator, is shown in the illustration.

The flat steel part *B* on the right hand side contains liquid ammonia and the small steel tank *A* on the left contains water. These two parts are connected by steel pipes, as shown, and the whole arrangement is mounted on a ball bearing *E*, and is free to rock slightly on this bearing.

The flat part *B* is located inside the refrigerator proper and contains liquid ammonia at a temperature of about zero. The small projection *F* freezes into the cup shown and after all the liquid ammonia evaporates, this melts and, as the tank *A* is now several pounds heavier than the flat part *B*, the whole arrangement rocks slightly on the bearing until an electric switch is closed which turns the current on an electric heating coil located inside the tank *A*.

A small stream of water flows constantly into one side or the other of the trough *T*. The trough is divided and from each half a pipe leads the water over the tank *A* or the flat part *B*, depending mainly on the position.



The electric heater drives the ammonia gas out of the water in the tank and through the connecting pipes to the flat part *B* where the gas is cooled by the trickling water and condenses to a liquid. After most of the ammonia has been driven from the water in the tank and liquified in the flat part the latter becomes several pounds heavier than the tank and the whole machine rocks, opening the electric switch, and diverting the water to the other side of the trough so that it cools the tank. This cooling prepares the water in the tank to absorb ammonia gas again, and within a few minutes the flat part *B* is covered with frost and frozen down where it remains for five or six hours or until all the ammonia is gone, when the cycle is recommenced.

Automatic Filament Current Adjuster

Electrical Merchandising, June, 1922

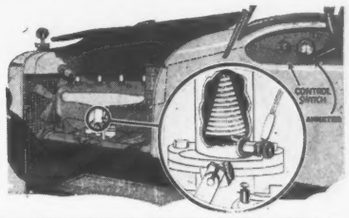
A new automatic filament current adjuster has recently been offered for radio use by the Radiall Company, 99 Warren Street, New York City. It should be connected in series with the V. T. filament and the "A" battery. According to the manufacturer, it has the following features:

It makes the operation of vacuum tubes "fool proof"; eliminates the necessity of rheostats in the filament circuit, as the action is automatic; operates the tube at its greatest efficiency without adjustment of any kind; automatically decreases excess current on the filament, thereby prolonging the life of the tube and preventing it from "burning out." Its trade name is "Amperite."

Motor Car Starter

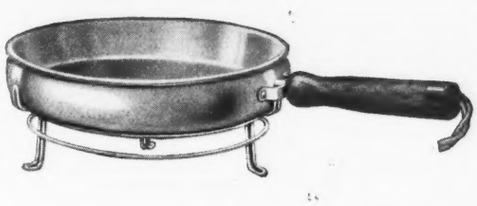
Electrical Merchandising, June, 1922

"Sure Start, Electric Hot Spot" is the name given to its new motor car starter by the Edwin L. Wiegand Company, 422 First Avenue, Pittsburgh, Pa. The object of this device is to utilize some of the electric current ordinarily wasted from automobile storage batteries by excessive use on the starting motor, converting it into heat at the vital spot, to insure instant starting. The device operates on the principle of a simple electric heating coil, and is attached inside the intake manifold. This cone-shaped coil is connected to ammeter or battery and is controlled by a simple switch attached to dashboard or other convenient place. It is manufactured in about eight standard sizes, fitting about sixty makes of cars.



Electric Frying Pan for Summer Bungalows

Electrical Merchandising, June, 1922



Summer bungalows, camps and country homes find many uses for handy, all-round cooking devices that save time and space. The electric frying pan made by the Rohne Electric Company, 2434 Twenty-fifth Avenue, South, Minneapolis, Minn., is of steel, with the heating element covering the entire bottom and lower sides. The Whitney Company, 143 Liberty Street, New York City, is the Eastern distributer.

File these items on 3 x 5 in. cards every month, to keep your stock index up to date.

New Retail Electrical Stores

(Continued from page 139)

Winfield (Queens County)—Queens Radio Company; incorporators S. A. Barone and others.

Yonkers—Steadman Music House, 43 Warburton Avenue. Added line of radio supplies and equipment.

NORTH CAROLINA

Winston-Salem—The Motor Company. Also in wholesale auto and electric supply business.

NORTH DAKOTA

Enderlin (Ransom County) — Everlite Electric Shop, M. A. Dorothy, proprietor, successor to Gus Stresetha.

Fargo—Gordon South, 19 South Eighth Street, successor to A. E. Champlin Company.

OHIO

Akron—The Radicart Supply Company, electrical supplies and radio. Incorporators Donald A. Hoffman, K. P. Kahlke, Carl Tooker, M. M. Maxon, Edward S. Sheck and L. M. Bloom.

Canton—George C. Wille & Company, 305 Cleveland Avenue, added line of electrical and radio supplies.

Dillon Electric Company, erecting addition to store at 1712 Eleventh Street.

Roger Thor Electric Shop, new branch store at 138 Fifth Street, N. W. Company also has shop in Colon Arcade, Cleveland.

Cincinnati — Huber Building Material Company, Harry A. Huber, president, new branch store at 713 Main Street. Also in business at 48 Vine Street.

Fisher-Aeschbach Company. Incorporators C. H. Fisher, G. E. Fisher, M. S. Fisher, A. Aeschbach and A. L. Wolf.

Radio Company; incorporators Winton F. Kelly, Henry S. Voelker, Charles S. Voelker, E. A. Leuchtenberg and Russell C. Brennan.

Cleveland—Eberhardt & Company, 8106 St. Clair Avenue.

Day Radio Company. Incorporators, A. C. Day, A. B. Covert, Frank S. Wendling, W. A. Rowley and Henry E. Werner.

Edwin J. Goetz Company, 3430 Tilford Avenue, radio supplies; incorporators, Edward J. Goetz, William Pfeiffer, Frederick P. Syfel and Elizabeth L. Pfeiffer.

Radio Concert Company; incorporators, R. W. Wright, H. Dabrin, E. Zalad, Frank S. Taylor and W. H. Hasselman.

Jack V. Elliott Company; electrical supplies and radio; incorporators, John V. Elliott, Lester E. France, Merle C. France, John Dicher and T. J. Ross.

L. C. Evans Company, fixtures, supplies and novelties. Incorporators, L. E. Guentzler, I. E. Brick, E. Williams, M. Junke and C. L. Brueggermyer.

Bath-Longoria Radiophone Company; electrical supplies and radio; incorporators, L. C. Spieth, Jay P. Taggart, Walter L. Spring, H. M. Dwyer and L. A. O'Neil.

Cleveland—Blue Bird Washer Company, 34 Taylor Arcade.

Port Clinton—Electric Service Garage. Added line of radio supplies.

Mizener Dryman Hardware Company; added line of radio supplies.

Toledo—J. N. Stevens, 440 Superior Street.

Warren—Luse Electric Company; incorporators, M. B. Taylor, Elizabeth Baldwin, Emma Kistler, R. Whitney and Mary Bishop.

Youngstown — Youngstown Radio Company; capitalization $75,000; incorporators, Francis M. Van Esbeck, Joseph L. Heffernan, George C. Stiles, Martin P. Walsh and James Brennan.

Zanesville — American Light Company, 122-128 Main Street; electrical fixtures and equipment; incorporators Adolph Goldenberg, S. Goldstein, E. A. Lorimer and P. H. Tannehill.

OKLAHOMA

Cleveland (Pawnee County)—Cleveland Electrical Company. Capitalization $100,000; old concern recently incorporated by J. B. Meyers and others.

Oklahoma City—American Electric & Ignition Company moved to 708 North Broadway.

Weleetka (Okfuskee County)—L. E. Hall. Weleetka Electric Company, H. J. Thele and H. B. Shaw proprietors.

OREGON

Portland—E. L. Knight & Company, 822 Gasco Building; old concern recently incorporated with capitalization of $50,000.

PENNSYLVANIA

Bethlehem—G. Elliott Hill Estate, moved to Main and Market Streets.

Brookville (Jefferson County)—T. A. Gooder, McKinley Hotel Building; radio supplies.

Hanover (York County)—Roland R. S. Swam, 16 York Street.

Hellertown (Northampton County)—A. C. Dullenkopf Electric Company, new branch at 437 Main Street. Also in business at 1062 Delaware Avenue, Bethlehem, Pennsylvania.

Johnstown—Johnstown Radio Company, Market Street. W. and L. Campbell, proprietors.

Lancaster—Fulton Electric Shop, Inc.; incorporators H. B. Brubaker, electrical contractor, and others.

Lehighton (Carbon County)—Jones & Son, James T. Jones in plumbing business.

Mercer—Fred Elliott.

Philadelphia—The West Philadelphia Gas & Electric Fixture Company, has opened a new store at 5203 Market Street, in conjunction with its business at 5943 Market Street.

Philadelphia—Gas Electric & Fixture Supply Company, Seventh and South Streets.

Pittsburgh—The Electrical City Radio Company, 539 Wood Street. Radio supplies.

Pittston—Coursen Hardware Company, 30 North Main St., added line of electrical supplies.

Reading—William Crane, 111 North Ninth Street.

David G. Geiger, 647 Schuylkill Avenue, successor to Geiger and Gerhart.

Leon M. Gerhart, 325 Hollenbach Street; formerly with Geiger and Gerhart.

Schuylkill Haven—A. A. Ruff, Deschert Building.

Wilkes Barre—E. Robinson, 62 South Washington Avenue.

Foster Radio & Electric Company, 4 West Northampton Street. Frank Foster, Jr., manager.

SOUTH CAROLINA

Cheraw (Chesterfield County)—Carolina Radio Corporation; electrical and radio supplies. H. Duval and others.

SOUTH DAKOTA

Flandreau (Moody County)—Flandreau Electric Fair Store, J. T. Sims proprietor, successor to Sims and Nord.

TENNESSEE

Covington (Tipton County)—Electric & Plumbing Supply Company; J. J. Green and F. B. Grunk proprietors.

Livingston (Overton County)—S. O. Kennedy.

Pikeville (Bledsoe County)—B. W. Boyd and J. Y. Wigle.

TEXAS

Fort Worth—R. L. Harris, 104 East Tenth Street, radio supplies.

Houston — Woods Electric Company, Travis Street between Capitol and Rusk Streets, successor to Brownwoods Electric Company.

WASHINGTON

Seattle—United States Radio Corporation; incorporators, Emanuel Secord, 5054 Seventh Street, N. E., Seattle, and others. Radio supplies.

WEST VIRGINIA

Huntington — Barnett & Hall Electrical Company, 606 Seventh Avenue. Formerly with the McKellar Electric Company.

Kingwood (Preston County)—Preston Electric Company, P. Michelson, proprietor.

Salem (Harrison County)—J. E. Barnes and Brother.

Shepherdstown (Jefferson County)—Good Company; M. M. and I. A. Good, proprietors.

Spencer (Roane County)—Spencer Electrical Co., John Parrish, proprietor, successor to O. A. Flick.

WISCONSIN

Chilton (Calumet County)—Louis Siegrist, Miller Building.

Madison—Northwestern Radio Company, 205 State Street. Radio supplies.

Wisconsin Radio Corporation. W. R. Muehl and others.

Marinette—Marinette Electric Company, F. A. Brown and others.

Sheboygan—Charles Rehwaldt, successor to Warden & Rehwaldt Electric Shop.

Stevens Point (Portage County)—O. K. Electric Shop, Harold Bandow, proprietor, 206 Clark Street.

Superior — May Furniture Company, moved to 1501-9 Tower Avenue, Board of Trade Building.

Ross Electric Company, Inc., moved to 1225 Tower Avenue.

WYOMING

Cheyenne—Fitch Jefferies Electric Company, successor to F. W. Fitch.

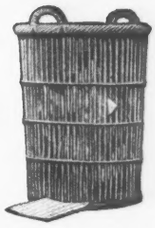
Ain't It a Grand and Glorious Feelin'?

By Briggs

WHEN FRIEND WIFE TELLS YOU TO WATCH THE PERCOLATOR AND TOASTER AND POSTPONE YOUR PAPER
AND YOU SUDDENLY FIND BOTH ELECTRIC APPLIANCES NEED URGENT ATTENTION (NO SWITCHES)
AND IN THE RESULTING CONFUSION YOU ASK WHY SUCH APPLIANCES DON'T HAVE SWITCHES RIGHT ON THEM, ONLY TO BE BAWLED OUT AND TOLD TO GO TRY TO BUY THEM
I THINK HE'S HAVING DOMESTIC TROUBLES
HIS LANGUAGE IS VILE
AND YOU FUME ALL DAY IN THE OFFICE WONDERING WHAT TO GET AND WHERE TO GET IT
AND YOU FEARFULLY RETURN TO THE WIFE ONLY TO FIND THAT SHE WAS OUT AND FOUND HER FAVORITE STORE HAD JUST THE RIGHT SWITCHES
OH-H-H- BOY!! AIN'T IT A GR-R-R-RAND AND GLOR-R-RIOUS FEELIN'?-
TA TATA
TYA-TYA-
Bailey

Courtesy of Beaver Mach. and Tool Company.

The Lighter Sighed



Luminosite Wath a Myth
(She Lithped)

Editor, Lighter Sighed:
What is, or who was Luminosity?
——W. T. J., JR.

"Who was" is correct. Luminosite was the Greek goddess of chandeliers. She was supposed to have been the originator of the flapper type among the deities, and besides having her hair bobbed she had all her robes made knee-length, with fringe on the bottom.

She took to smoking cigarettes, Luminosite did. And one day her father, Soakus, the god of meters, saw her with a cigarette holder measuring 18 inches from lip to tip. Old Soakus became very wroth and pursued his daughter madly.

In her haste to escape her father's vengeance, Luminosite fell off the edge of Olympus, catching one toe in the root of a bacchanalian grape vine. There she hung . . . and hung.

When the rest of the gods crowded around to wait for the ambulance they decided to punish Luminosite for her brazen, bronze and brushed brass conduct, and they willed that she should remain there for ages, hanging by one toe, with her cigarette burning on and on.

There she still hangs and if you will look at the heavens on any clear night you will find a star exactly above the street light on the corner. That star is really the glowing butt of Luminosite's cigarette.

Look too, on certain of our earlier chandeliers and you will see how designers were inspired by the grace of Luminosite's position in space.

——EDITOR.

A Paneful Statement

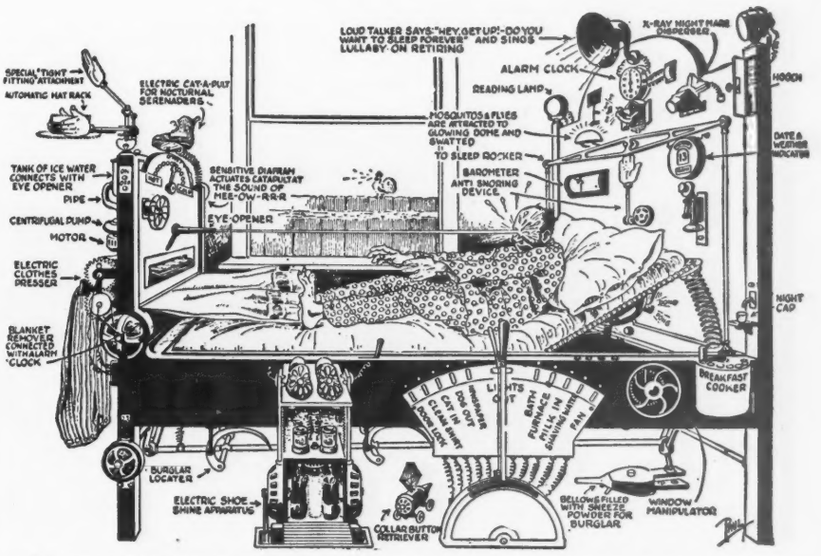
"G. K. G." writes in on a piece of his boss' stationery to tell us that Paul Glasser sells glass for every electrical use on Bedford Avenue, Brooklyn.

A Fixture Man Dug This One up

A bird walks into our place the other day to look at period fixtures. After the boss spent half an hour with him he bought a box of ten-watt lamps.

"Well," he says to the boss on the way out, "how do you find business?"

"Same way you find copper ore!" says the boss. —U. SEDDIT.


LOUD TALKER SAYS "HEY, GET UP! - DO YOU WANT TO SLEEP FOREVER" AND SINGS LULLABY ON RETIRING
X-RAY NIGHTMARE SUPPRESSER
ALARM CLOCK
READING LAMP
HOOCH
SPECIAL "TIGHT" FITTING ATTACHMENT
AUTOMATIC HAT RACK
ELECTRIC CAT-A-PULT FOR NOCTURNAL SERENADERS
MOSQUITOS & FLIES ARE ATTRACTED TO GLOWING DOME AND SWATTED
TO SLEEP ROCKER
DATE & WEATHER INDICATOR
TANK OF ICE WATER CONNECTS WITH EYE OPENER
PIPE
CENTRIFUGAL PUMP
MOTOR
SENSITIVE DIAPHRAM ACTUATES CATAPULTAT THE SOUND OF MEE-OW-RR-R
EYE-OPENER
BAROMETER
ANTI SNORING DEVICE
ELECTRIC CLOTHES PRESSER
NIGHT CAP
BLANKET REMOVER CONNECTED WITH ALARM CLOCK
BREAKFAST COOKER
BURGLAR LOCATER
ELECTRIC SHOE SHINE APPARATUS
COLLAR BUTTON RETRIEVER
BELLOWS FILLED WITH SNEEZE POWDER FOR BURGLAR
WINDOW MANIPULATOR

This remarkable picture, originally published in *Science and Invention*, gives us a glimpse into the night life of the future that out-profs the most prophetic conceptions of our own Prof. Fusebox.

To C. L. F. Editor
The Lighter Sighed:

I wish to catapult this convivial conundrum into the lime light in THE LIGHTER SIGHED—What should a man wear when he talks into the hungry hopper of a radio broadcasting station for the entertainment or amusement of the vast audience of dead-head eavesdroppers that silently absorbs the ceaseless chatter from the air?

I ask to know—because I find that no less a headliner than O. H. Caldwell, the well known editor, the noble founder and Most Wordy Recording Wattmeter of the Home Electric Legion does it in a brand new gray tweed suit, a brand new pair of high tan brogues and a tie with diagonal green stripes. But is it possible for any man to organize and synchronize a get-up like that on the first day he wears 'em' so that it will sound as well in Pelham Manor as it does in Hoboken? I wonder. And if not, should the radio people permit it? And anyhow what have all these wireless nuts ever done to him that he should—but I wish this to be not personal but scientific.

No one can tell nowadays when he will be called upon to fill in between an imitation of dishwashing at Childs and a United States Health Service lecture on "How to Teach New Tricks to Dimples." I simply want to have it straight and ready in my mind.

——E. E. W.

It was the month after his wife had gone to the weekly meeting of the Bridge Battling Society and left the iron turned on that hubby was inspecting an absorbing little statement from the light and power company. "Ah!" he murmured, "this must be that charge of the light brigade that Tennyson was talking about."

Song of the Summer Season

When wiremen take a half a day
To put a fixture up to stay,
And take great care
About their hair
To keep it slick and parted;
When they duck out at noon to buy
A green and purple silken tie
And several socks
With eight-day clocks—
You know that Summer's started.
And when the maid with large blue eyes
Who types your letters, shows surprise
That you should ask
A single task
To be at once completed;
And when she hugs the telephone
And talks to "George" as if alone
The fact is clear:
That season's here
Which editors call "heated."

"Spring" fever is, indeed, a fact—
A force that slows the power to act;
That knocketh dead
An active head,
And makes a dumb-bell dumber.
It may be luck or merely fate,
Or just because the seuson's late
But just this year
Spring fever here
Has come in early Summer!

——C. L. F.

yours!

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